# Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings*** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Building Floorspace (Square Feet)** | | | | | | | | |
| 1,001 to 5,000 | 2,552 | 6,789 | 672 | 1,164 | 386 | 250 | 34 | Q |
| 5,001 to 10,000 | 889 | 6,585 | 516 | 790 | 262 | 209 | 36 | Q |
| 10,001 to 25,000 | 738 | 11,535 | 776 | 1,229 | 407 | 309 | 27 | Q |
| 25,001 to 50,000 | 241 | 8,668 | 673 | 1,058 | 350 | 258 | 16 | Q |
| 50,001 to 100,000 | 129 | 9,057 | 759 | 1,223 | 405 | 244 | 26 | Q |
| 100,001 to 200,000 | 65 | 9,064 | 934 | 1,458 | 483 | 249 | 37 | 165 |
| 200,001 to 500,000 | 25 | 7,176 | 725 | 1,090 | 361 | 205 | 36 | 123 |
| Over 500,000 | 7 | 5,908 | 766 | 1,157 | 383 | 204 | 10 | 169 |
| **Principal Building Activity** | | | | | | | | |
| Education | 386 | 9,874 | 820 | 1,121 | 371 | 268 | 47 | 134 |
| Food Sales | 226 | 1,255 | 251 | 629 | 208 | 39 | Q | N |
| Food Service | 297 | 1,654 | 427 | 654 | 217 | 203 | Q | Q |
| Health Care | 129 | 3,163 | 594 | 748 | 248 | 243 | 11 | Q |
| Inpatient | 8 | 1,905 | 475 | 539 | 178 | 204 | 9 | Q |
| Outpatient | 121 | 1,258 | 119 | 209 | 69 | 38 | Q | Q |
| Lodging | 142 | 5,096 | 510 | 709 | 235 | 215 | 35 | Q |
| Retail (Other Than Mall) | 443 | 4,317 | 319 | 637 | 211 | 91 | Q | Q |
| Office | 824 | 12,208 | 1,134 | 2,170 | 719 | 269 | 18 | 128 |
| Public Assembly | 277 | 3,939 | 370 | 506 | 167 | 102 | 29 | Q |
| Public Order and Safety | 71 | 1,090 | 126 | 172 | 57 | 29 | 8 | Q |
| Religious Worship | 370 | 3,754 | 163 | 188 | 62 | 82 | 18 | Q |
| Service | 622 | 4,050 | 312 | 451 | 149 | 139 | Q | Q |
| Warehouse and Storage | 597 | 10,078 | 456 | 738 | 244 | 132 | 9 | Q |
| Other | 79 | 1,738 | 286 | 401 | 133 | 87 | Q | Q |
| Vacant | 182 | 2,567 | 54 | 46 | 15 | 28 | Q | Q |
| **Year Constructed** | | | | | | | | |
| Before 1920 | 330 | 3,769 | 302 | 271 | 90 | 143 | 38 | Q |
| 1920 to 1945 | 527 | 6,871 | 620 | 626 | 208 | 229 | 54 | 129 |
| 1946 to 1959 | 562 | 7,045 | 565 | 696 | 231 | 216 | 48 | Q |
| 1960 to 1969 | 579 | 8,101 | 737 | 989 | 327 | 255 | Q | 117 |
| 1970 to 1979 | 731 | 10,772 | 1,023 | 1,726 | 572 | 351 | 22 | 77 |
| 1980 to 1989 | 707 | 10,332 | 1,034 | 1,892 | 627 | 291 | 9 | Q |
| 1990 to 1999 | 876 | 12,360 | 1,098 | 2,082 | 690 | 314 | 9 | Q |
| 2000 to 2003 | 334 | 5,533 | 441 | 884 | 293 | 127 | Q | Q |
| **Census Region and Division** | | | | | | | | |
| Northeast | 726 | 12,905 | 1,271 | 1,519 | 503 | 428 | 175 | 165 |
| New England | 233 | 2,964 | 294 | 326 | 108 | 75 | 69 | Q |
| Middle Atlantic | 493 | 9,941 | 978 | 1,192 | 395 | 353 | 106 | Q |
| Midwest | 1,266 | 17,080 | 1,690 | 2,224 | 737 | 705 | 24 | 225 |
| East North Central | 696 | 11,595 | 1,254 | 1,580 | 524 | 528 | Q | 192 |
| West North Central | 571 | 5,485 | 436 | 643 | 213 | 177 | Q | Q |
| South | 1,775 | 23,489 | 1,948 | 3,858 | 1,278 | 474 | 14 | 182 |
| South Atlantic | 874 | 12,258 | 1,064 | 2,166 | 717 | 217 | 13 | 117 |
| East South Central | 348 | 3,393 | 309 | 515 | 171 | 102 | 1 | Q |
| West South Central | 553 | 7,837 | 575 | 1,177 | 390 | 156 | 1 | Q |
| West | 878 | 11,310 | 911 | 1,568 | 519 | 320 | 9 | Q |
| Mountain | 299 | 3,675 | 381 | 576 | 191 | 167 | Q | Q |
| Pacific | 580 | 7,635 | 530 | 992 | 329 | 153 | 4 | Q |

# Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* ..... ** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Climate Zone: 30-Year Average** | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | |
| More than 7,000 HDD ..... | 855 | 10,622 | 990 | 1,232 | 408 | 431 | 63 | 88 |
| 5,500-7,000 HDD ..... | 1,173 | 17,335 | 1,761 | 2,305 | 763 | 679 | 63 | 255 |
| 4,000-5,499 HDD ..... | 673 | 11,504 | 1,134 | 1,713 | 567 | 337 | 90 | 140 |
| Fewer than 4,000 HDD ..... | 1,276 | 15,739 | 1,213 | 2,259 | 748 | 358 | 6 | 101 |
| 2,000 CDD or More and -- | | | | | | | | |
| Fewer than 4,000 HDD ..... | 669 | 9,584 | 724 | 1,659 | 549 | 122 | 1 | Q |
| **Number of Floors** | | | | | | | | |
| One ..... | 3,136 | 25,981 | 1,937 | 3,442 | 1,140 | 664 | 47 | Q |
| Two ..... | 1,031 | 16,270 | 1,311 | 2,080 | 689 | 491 | 69 | Q |
| Three ..... | 339 | 7,501 | 619 | 863 | 286 | 241 | 39 | Q |
| Four to Nine ..... | 128 | 10,085 | 1,336 | 1,796 | 595 | 378 | 55 | 308 |
| Ten or More ..... | 12 | 4,947 | 617 | 987 | 327 | 154 | 13 | 123 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | |
| Any Elevators ..... | 309 | 24,617 | 2,826 | 4,289 | 1,421 | 830 | 84 | 491 |
| Number of Elevators | | | | | | | | |
| One ..... | 208 | 8,221 | 732 | 1,069 | 354 | 244 | 23 | 111 |
| Two to Five ..... | 88 | 10,129 | 1,157 | 1,767 | 585 | 333 | 46 | 194 |
| Six or More ..... | 13 | 6,268 | 937 | 1,453 | 481 | 254 | 16 | 186 |
| Any Escalators ..... | 6 | 2,350 | 282 | 583 | 193 | 61 | Q | Q |
| **Number of Workers (main shift)** | | | | | | | | |
| Fewer than 5 ..... | 2,653 | 15,492 | 817 | 1,122 | 372 | 272 | 69 | Q |
| 5 to 9 ..... | 778 | 6,166 | 468 | 749 | 248 | 198 | 17 | Q |
| 10 to 19 ..... | 563 | 7,803 | 594 | 915 | 303 | 242 | 33 | Q |
| 20 to 49 ..... | 398 | 10,989 | 1,050 | 1,581 | 524 | 395 | 36 | 96 |
| 50 to 99 ..... | 147 | 7,934 | 728 | 1,218 | 403 | 241 | 27 | Q |
| 100 to 249 ..... | 77 | 6,871 | 838 | 1,388 | 460 | 235 | 19 | 124 |
| 250 or More ..... | 30 | 9,528 | 1,325 | 2,195 | 727 | 344 | 22 | 232 |
| **Weekly Operating Hours** | | | | | | | | |
| Fewer than 40 ..... | 1,002 | 6,863 | 228 | 272 | 90 | 107 | 15 | Q |
| 40 to 48 ..... | 1,117 | 11,622 | 773 | 1,199 | 397 | 249 | 58 | Q |
| 49 to 60 ..... | 1,062 | 15,723 | 1,179 | 1,805 | 598 | 374 | 32 | 176 |
| 61 to 84 ..... | 591 | 10,334 | 924 | 1,500 | 497 | 314 | 40 | 73 |
| 85 to 167 ..... | 400 | 7,092 | 889 | 1,579 | 523 | 257 | 18 | 91 |
| Open Continuously ..... | 475 | 13,149 | 1,827 | 2,813 | 932 | 626 | 59 | 210 |
| **Ownership and Occupancy** | | | | | | | | |
| Nongovernment Owned ..... | 4,011 | 49,421 | 4,203 | 6,944 | 2,300 | 1,503 | 154 | 247 |
| Owner Occupied ..... | 1,841 | 23,591 | 2,060 | 3,280 | 1,086 | 708 | 81 | 185 |
| Nonowner Occupied ..... | 2,029 | 23,914 | 2,115 | 3,639 | 1,205 | 779 | 72 | Q |
| Unoccupied ..... | 141 | 1,916 | Q | 25 | 8 | Q | Q | Q |
| Government Owned ..... | 635 | 15,363 | 1,617 | 2,224 | 737 | 425 | 69 | 387 |
| Federal ..... | 46 | 1,956 | 303 | 395 | 131 | 35 | Q | Q |
| State ..... | 164 | 3,808 | 513 | 616 | 204 | 98 | 23 | 188 |
| Local ..... | 425 | 9,599 | 800 | 1,213 | 402 | 291 | 39 | Q |
| **Vacancy Status** | | | | | | | | |
| Completely Vacant ..... | 157 | 2,161 | 37 | 28 | 9 | 18 | Q | Q |
| Mostly Vacant ..... | 25 | 406 | Q | Q | Q | Q | Q | N |
| Partially Vacant ..... | 548 | 12,382 | 1,086 | 1,736 | 575 | 318 | 30 | 164 |
| Not At All Vacant ..... | 3,915 | 49,834 | 4,681 | 7,386 | 2,446 | 1,582 | 191 | 461 |

# Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* ..... ** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Number of Establishments** | | | | | | | | |
| One ..... | 3,754 | 45,144 | 4,167 | 6,454 | 2,138 | 1,462 | 183 | 384 |
| 2 to 5 ..... | 643 | 10,960 | 992 | 1,517 | 502 | 307 | 28 | 156 |
| 6 to 10 ..... | 55 | 1,958 | 216 | 348 | 115 | 48 | Q | Q |
| 11 to 20 ..... | 23 | 1,951 | 152 | 295 | 98 | 34 | Q | Q |
| More than 20 ..... | 14 | 2,609 | 257 | 526 | 174 | 58 | Q | Q |
| Currently Unoccupied ..... | 157 | 2,161 | 37 | 28 | 9 | 18 | Q | Q |
| **Predominant Exterior Wall Material** | | | | | | | | |
| Brick, Stone or Stucco ..... | 2,044 | 32,817 | 3,186 | 4,549 | 1,507 | 1,127 | 144 | 408 |
| Concrete (Block or Poured) ..... | 786 | 10,832 | 974 | 1,599 | 530 | 351 | 24 | Q |
| Concrete Panels ..... | 131 | 6,559 | 667 | 1,205 | 399 | 180 | Q | Q |
| Siding or Shingles ..... | 779 | 4,120 | 276 | 452 | 150 | 85 | 41 | Q |
| Metal Panels ..... | 825 | 7,912 | 463 | 897 | 297 | 130 | 8 | Q |
| Window Glass ..... | 17 | 1,024 | 95 | 201 | 67 | 14 | 0 | Q |
| Other ..... | 47 | 1,113 | 121 | 190 | 63 | 35 | Q | Q |
| No One Major Type ..... | 18 | 406 | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | |
| Built-Up ..... | 1,036 | 21,170 | 2,083 | 3,143 | 1,041 | 743 | 37 | 263 |
| Shingles (Not Wood) ..... | 1,325 | 10,195 | 823 | 1,247 | 413 | 310 | 63 | Q |
| Metal Surfacing ..... | 1,288 | 11,944 | 630 | 1,184 | 392 | 194 | 21 | Q |
| Synthetic or Rubber ..... | 511 | 14,730 | 1,649 | 2,686 | 890 | 542 | 46 | 171 |
| Slate or Tile ..... | 263 | 2,462 | 207 | 313 | 104 | 67 | 12 | Q |
| Wooden Materials ..... | 122 | 887 | 68 | 111 | 37 | 21 | Q | Q |
| Concrete ..... | 61 | 2,231 | 236 | 299 | 99 | 24 | Q | Q |
| Other ..... | 16 | 598 | Q | 125 | 41 | Q | Q | Q |
| No One Major Type ..... | 25 | 565 | 40 | 61 | 20 | 16 | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | |
| Any Type of Renovation Since 1980 ..... | 1,018 | 17,844 | 1,766 | 2,356 | 780 | 684 | 105 | 197 |
| Addition or Annex ..... | 256 | 6,551 | 733 | 951 | 315 | 304 | Q | Q |
| Reduction In Floorspace ..... | 22 | 1,012 | 117 | 158 | 52 | 52 | Q | Q |
| Cosmetic Improvements ..... | 741 | 13,119 | 1,317 | 1,812 | 600 | 497 | 77 | 143 |
| Wall or Roof Replacement ..... | 370 | 8,070 | 777 | 1,046 | 347 | 278 | 54 | 99 |
| Interior Wall Re-Configuration ..... | 411 | 8,518 | 911 | 1,212 | 401 | 342 | 44 | 124 |
| HVAC Equipment Upgrade ..... | 442 | 10,768 | 1,156 | 1,591 | 527 | 467 | 34 | 128 |
| Lighting Upgrade ..... | 455 | 10,275 | 1,085 | 1,442 | 478 | 397 | 53 | 157 |
| Window Replacement ..... | 310 | 6,354 | 613 | 757 | 251 | 242 | 50 | Q |
| Plumbing System Upgrade ..... | 315 | 7,144 | 748 | 947 | 314 | 287 | 45 | 103 |
| Insulation Upgrade ..... | 227 | 4,015 | 381 | 526 | 174 | 132 | 21 | Q |
| Other Renovation ..... | 19 | 523 | 50 | 49 | 16 | 26 | Q | Q |
| No Renovations Since 1980 ..... | 1,710 | 18,714 | 1,482 | 1,953 | 647 | 512 | 94 | 229 |
| Building Newer than 1980 ..... | 1,917 | 28,225 | 2,573 | 4,859 | 1,609 | 732 | 23 | 208 |

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## Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* .....** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Energy Sources (more than one may apply)** | | | | | | | | |
| Electricity ..... | 4,404 | 63,307 | 5,820 | 9,168 | 3,037 | 1,927 | 222 | 634 |
| Natural Gas ..... | 2,391 | 43,468 | 4,492 | 6,524 | 2,161 | 1,928 | 99 | 305 |
| Fuel Oil ..... | 451 | 15,157 | 1,760 | 2,578 | 854 | 507 | 222 | 177 |
| District Heat ..... | 67 | 5,443 | 1,017 | 1,011 | 335 | 47 | 1 | 634 |
| District Chilled Water ..... | 33 | 2,853 | 538 | 580 | 192 | 35 | 2 | 309 |
| Propane ..... | 502 | 7,076 | 584 | 1,022 | 339 | 106 | 54 | Q |
| Other ..... | 132 | 1,401 | 139 | 233 | 77 | 47 | Q | Q |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | |
| Electricity ..... | 1,766 | 28,600 | 2,373 | 4,696 | 1,555 | 667 | 29 | 122 |
| Natural Gas ..... | 2,165 | 36,959 | 3,682 | 5,401 | 1,789 | 1,803 | 30 | Q |
| Fuel Oil ..... | 360 | 5,988 | 591 | 588 | 195 | 176 | 212 | Q |
| District Heat ..... | 65 | 5,198 | 994 | 967 | 320 | 39 | 1 | 633 |
| Propane ..... | 372 | 3,204 | 160 | 362 | 120 | Q | 11 | Q |
| Other ..... | 113 | 842 | 61 | 122 | 41 | 18 | Q | N |
| **Primary Space-Heating Energy Source** | | | | | | | | |
| Electricity ..... | 1,258 | 15,996 | 1,089 | 2,739 | 907 | 177 | 3 | Q |
| Natural Gas ..... | 1,999 | 32,970 | 3,280 | 4,724 | 1,565 | 1,687 | 15 | Q |
| Fuel Oil ..... | 282 | 3,818 | 294 | 232 | 77 | 20 | 197 | N |
| District Heat ..... | 63 | 4,907 | 951 | 935 | 310 | 23 | 1 | 618 |
| Propane ..... | 308 | 1,955 | 71 | 211 | 70 | Q | Q | Q |
| Other ..... | 72 | 382 | 19 | 47 | 16 | Q | Q | N |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | |
| Electricity ..... | 3,589 | 54,321 | 5,021 | 8,386 | 2,778 | 1,762 | 174 | 307 |
| Natural Gas ..... | 17 | 1,018 | 159 | 189 | 63 | 92 | Q | Q |
| District Chilled Water ..... | 33 | 2,853 | 538 | 580 | 192 | 35 | 2 | 309 |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | |
| Electricity ..... | 1,910 | 27,490 | 2,145 | 4,146 | 1,373 | 522 | 84 | 167 |
| Natural Gas ..... | 1,445 | 28,820 | 3,206 | 4,592 | 1,521 | 1,509 | 56 | Q |
| Fuel Oil ..... | 94 | 1,880 | 206 | 176 | 58 | 36 | 109 | Q |
| District Heat ..... | 27 | 3,088 | 563 | 603 | 200 | 33 | Q | 329 |
| Propane ..... | 128 | 1,422 | 81 | 191 | 63 | Q | Q | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | |
| Electricity ..... | 410 | 13,161 | 1,579 | 2,561 | 848 | 538 | 47 | 146 |
| Natural Gas ..... | 457 | 15,438 | 2,074 | 2,970 | 984 | 856 | 76 | 158 |
| Propane ..... | 108 | 1,460 | 114 | 240 | 80 | Q | 25 | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | |
| Buildings with Space Heating ..... | 3,982 | 60,028 | 5,705 | 8,887 | 2,944 | 1,909 | 219 | 634 |
| Buildings with Cooling ..... | 3,625 | 56,940 | 5,464 | 8,855 | 2,933 | 1,821 | 176 | 535 |
| Buildings with Water Heating ..... | 3,472 | 56,478 | 5,498 | 8,732 | 2,892 | 1,870 | 213 | 523 |
| Buildings with Cooking ..... | 801 | 22,237 | 2,712 | 4,158 | 1,377 | 997 | 119 | 219 |
| Buildings with Manufacturing ..... | 119 | 3,138 | 254 | 426 | 141 | 100 | 7 | Q |
| Buildings with Electricity Generation ..... | 149 | 12,821 | 1,693 | 2,687 | 890 | 534 | 31 | 237 |

# Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* ..... ** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Percent of Floorspace Heated** | | | | | | | | |
| Not Heated ..... | 663 | 4,756 | 115 | 281 | 93 | Q | Q | Q |
| 1 to 50 ..... | 523 | 6,850 | 299 | 565 | 187 | 97 | 13 | Q |
| 51 to 99 ..... | 498 | 8,107 | 746 | 1,193 | 395 | 268 | 26 | 57 |
| 100 ..... | 2,962 | 45,071 | 4,660 | 7,129 | 2,361 | 1,544 | 180 | 575 |
| **Percent of Floorspace Cooled** | | | | | | | | |
| Not Cooled ..... | 1,020 | 7,843 | 356 | 312 | 104 | 107 | 46 | Q |
| 1 to 50 ..... | 985 | 16,598 | 1,026 | 1,339 | 444 | 452 | 93 | Q |
| 51 to 99 ..... | 629 | 13,211 | 1,413 | 2,252 | 746 | 451 | 45 | 171 |
| 100 ..... | 2,011 | 27,132 | 3,026 | 5,265 | 1,744 | 918 | 38 | 326 |
| **Percent Lit When Open** | | | | | | | | |
| Zero ..... | 47 | 293 | Q | Q | Q | Q | Q | Q |
| 1 to 50 ..... | 929 | 10,203 | 540 | 679 | 225 | 224 | 50 | Q |
| 51 to 99 ..... | 1,108 | 18,288 | 1,736 | 2,698 | 894 | 576 | 67 | 199 |
| 100 ..... | 2,176 | 32,789 | 3,490 | 5,740 | 1,901 | 1,100 | 104 | 385 |
| Building Never Open/ Electricity Not Used ..... | 386 | 3,210 | 46 | 37 | 12 | 23 | Q | Q |
| **Percent Lit When Closed** | | | | | | | | |
| Zero ..... | 1,964 | 17,385 | 1,132 | 1,639 | 543 | 395 | 48 | Q |
| 1 to 50 ..... | 1,882 | 30,948 | 2,626 | 4,248 | 1,407 | 868 | 107 | 244 |
| 51 to 100 ..... | 136 | 2,093 | 235 | 468 | 155 | 40 | Q | Q |
| Building Never Closed/ Electricity Not Used ..... | 664 | 14,357 | 1,827 | 2,813 | 932 | 626 | 60 | 210 |
| **Heating Equipment (more than one may apply)** | | | | | | | | |
| Heat Pumps ..... | 476 | 8,814 | 805 | 1,578 | 523 | 224 | 6 | Q |
| Packaged Heat Pumps ..... | 278 | 5,442 | 523 | 1,085 | 359 | 140 | 3 | Q |
| Split-System Heat Pumps ..... | 166 | 2,581 | 198 | 410 | 136 | 42 | Q | Q |
| Individual Room Heat Pumps ..... | 58 | 2,691 | 255 | 448 | 148 | 84 | Q | Q |
| Furnaces ..... | 1,864 | 19,615 | 1,493 | 2,298 | 761 | 673 | 50 | Q |
| Individual Space Heaters ..... | 819 | 12,545 | 1,024 | 1,701 | 563 | 379 | 31 | 50 |
| District Heat ..... | 65 | 5,166 | 986 | 958 | 317 | 39 | 1 | 628 |
| Boilers ..... | 579 | 20,423 | 2,244 | 3,045 | 1,009 | 1,040 | 171 | Q |
| Packaged Heating Units ..... | 953 | 18,021 | 1,729 | 3,195 | 1,058 | 582 | 17 | Q |
| Other ..... | 205 | 3,262 | 231 | 508 | 168 | 47 | 5 | Q |
| **Cooling Equipment (more than one may apply)** | | | | | | | | |
| Residential-Type Central Air Conditioners ..... | 1,006 | 11,035 | 924 | 1,375 | 455 | 391 | 56 | Q |
| Heat Pumps ..... | 492 | 9,041 | 837 | 1,652 | 547 | 234 | 6 | Q |
| Packaged Heat Pumps ..... | 288 | 5,426 | 529 | 1,086 | 360 | 145 | Q | Q |
| Split-System Heat Pumps ..... | 174 | 2,606 | 204 | 421 | 139 | 45 | Q | Q |
| Individual Room Heat Pumps ..... | 58 | 2,940 | 278 | 518 | 171 | 85 | Q | Q |
| Individual Air Conditioners ..... | 742 | 12,558 | 1,080 | 1,445 | 479 | 410 | 99 | 91 |
| District Chilled Water ..... | 33 | 2,853 | 538 | 580 | 192 | 35 | 2 | 309 |
| Central Chillers ..... | 111 | 11,636 | 1,531 | 2,524 | 836 | 501 | 26 | 169 |
| Packaged Air Conditioning Units ..... | 1,613 | 29,969 | 2,862 | 4,765 | 1,578 | 1,090 | 85 | 110 |
| Swamp Coolers ..... | 122 | 1,561 | 158 | 227 | 75 | 81 | Q | Q |
| Other ..... | 40 | 1,232 | 142 | 225 | 75 | 52 | Q | Q |

# Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* ..... ** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | |
| Heating ..... | 1,197 | 16,403 | 1,367 | 2,161 | 716 | 605 | 43 | Q |
| Cooling ..... | 1,356 | 20,995 | 1,949 | 2,947 | 976 | 779 | 103 | 91 |
| **Water Heating Equipment** | | | | | | | | |
| Centralized System ..... | 2,513 | 34,671 | 3,432 | 5,310 | 1,759 | 1,226 | 161 | 286 |
| Distributed System ..... | 785 | 11,540 | 835 | 1,458 | 483 | 254 | 31 | Q |
| Combination of Centralized and Distributed System ..... | 175 | 10,267 | 1,231 | 1,964 | 651 | 390 | 20 | 170 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | |
| Incandescent ..... | 2,184 | 38,528 | 3,916 | 6,057 | 2,006 | 1,351 | 161 | 398 |
| Standard Fluorescent ..... | 3,943 | 59,688 | 5,644 | 8,909 | 2,951 | 1,865 | 214 | 614 |
| Compact Fluorescent ..... | 941 | 27,571 | 3,208 | 5,027 | 1,665 | 1,025 | 98 | 419 |
| High Intensity Discharge ..... | 455 | 20,643 | 2,141 | 3,400 | 1,126 | 693 | 52 | 270 |
| Halogen ..... | 565 | 17,703 | 1,982 | 3,226 | 1,069 | 666 | 65 | 182 |
| Other ..... | 8 | 269 | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | |
| Any Refrigeration..... | 3,176 | 52,974 | 5,213 | 8,366 | 2,771 | 1,729 | 200 | 513 |
| Commercial Refrigeration ..... | 1,007 | 26,768 | 3,336 | 5,397 | 1,788 | 1,124 | 126 | 299 |
| Walk-In Units ..... | 666 | 20,254 | 2,766 | 4,496 | 1,489 | 939 | 95 | 243 |
| Cases or Cabinets ..... | 825 | 20,424 | 2,703 | 4,349 | 1,441 | 910 | 95 | 257 |
| Residential-Type Units ..... | 2,370 | 38,884 | 3,466 | 5,342 | 1,769 | 1,181 | 159 | 357 |
| Vending Machines ..... | 996 | 35,335 | 3,721 | 5,992 | 1,985 | 1,163 | 105 | 468 |
| No Refrigeration ..... | 1,469 | 11,809 | 607 | 802 | 266 | 198 | 23 | Q |
| **Office Equipment (more than one may apply)** | | | | | | | | |
| Computers ..... | 3,081 | 55,627 | 5,376 | 8,567 | 2,838 | 1,750 | 196 | 593 |
| With Flat Screen Monitors ..... | 877 | 26,417 | 2,966 | 4,797 | 1,589 | 872 | 88 | 417 |
| Dedicated Servers ..... | 1,175 | 36,338 | 3,760 | 6,143 | 2,035 | 1,190 | 105 | 431 |
| Laser Printers ..... | 1,970 | 33,012 | 3,009 | 4,679 | 1,550 | 1,067 | 124 | 268 |
| Inkjet Printers ..... | 1,420 | 32,210 | 3,302 | 5,495 | 1,820 | 1,041 | 74 | 368 |
| FAX Machines ..... | 2,715 | 52,373 | 5,092 | 8,154 | 2,701 | 1,689 | 184 | 517 |
| Photocopiers ..... | 1,939 | 46,257 | 4,466 | 7,128 | 2,361 | 1,429 | 155 | 521 |
| **Number of Computers** | | | | | | | | |
| None ..... | 1,565 | 9,156 | 444 | 601 | 199 | 178 | 27 | Q |
| 1 to 4 ..... | 1,670 | 12,395 | 1,015 | 1,578 | 523 | 357 | 74 | Q |
| 5 to 9 ..... | 559 | 7,179 | 546 | 826 | 274 | 249 | 15 | Q |
| 10 to 19 ..... | 370 | 6,610 | 515 | 859 | 285 | 196 | 13 | Q |
| 20 to 49 ..... | 255 | 7,414 | 707 | 1,233 | 408 | 232 | 15 | Q |
| 50 to 99 ..... | 110 | 5,376 | 513 | 781 | 259 | 147 | 35 | Q |
| 100 to 249 ..... | 79 | 6,690 | 714 | 1,111 | 368 | 208 | 17 | 121 |
| 250 or More ..... | 38 | 9,963 | 1,366 | 2,179 | 722 | 360 | 27 | 257 |
| **Number of Dedicated Servers** | | | | | | | | |
| None ..... | 3,471 | 28,445 | 2,060 | 3,025 | 1,002 | 738 | 118 | 203 |
| 1 to 4 ..... | 1,060 | 24,116 | 2,234 | 3,520 | 1,166 | 809 | 74 | 184 |
| 5 to 9 ..... | 58 | 3,864 | 405 | 756 | 250 | 112 | 14 | Q |
| 10 to 19 ..... | 30 | 3,027 | 432 | 653 | 216 | 101 | 5 | 109 |
| 20 to 49 ..... | 17 | 2,583 | 307 | 552 | 183 | 76 | 7 | Q |
| 50 or More ..... | 10 | 2,748 | 382 | 662 | 219 | 91 | 5 | Q |

# Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* ..... ** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |
| **Number of Photocopiers** | | | | | | | | |
| None ..... | 2,706 | 18,526 | 1,355 | 2,040 | 676 | 498 | 68 | Q |
| One ..... | 1,250 | 15,475 | 1,130 | 1,792 | 593 | 429 | 55 | Q |
| 2 to 4 ..... | 549 | 15,082 | 1,334 | 2,132 | 706 | 451 | 41 | 137 |
| 5 to 9 ..... | 85 | 5,515 | 612 | 976 | 323 | 191 | 35 | Q |
| 10 or More ..... | 54 | 10,185 | 1,389 | 2,229 | 738 | 359 | 25 | 268 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | |
| Commercial Food Preparation ..... | 799 | 22,223 | 2,711 | 4,155 | 1,376 | 996 | 119 | 219 |
| Activities with Large Amounts of Hot Water ..... | 567 | 19,482 | 2,465 | 3,522 | 1,167 | 931 | 95 | 273 |
| Separate Computer Area ..... | 553 | 26,873 | 2,895 | 4,678 | 1,550 | 875 | 96 | 374 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | |
| Variable Air-Volume System ..... | 466 | 19,597 | 2,380 | 3,827 | 1,267 | 710 | 35 | 368 |
| Economizer Cycle ..... | 508 | 21,108 | 2,589 | 4,251 | 1,408 | 805 | 42 | 334 |
| HVAC Maintenance ..... | 2,581 | 51,163 | 5,170 | 8,161 | 2,703 | 1,659 | 196 | 612 |
| Energy Management and Control System (EMCS) ..... | 252 | 15,630 | 1,782 | 2,881 | 954 | 477 | 31 | 320 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | |
| Multipaned Windows ..... | 2,201 | 38,910 | 3,929 | 6,109 | 2,024 | 1,349 | 171 | 386 |
| Tinted Window Glass ..... | 1,323 | 29,887 | 3,098 | 5,077 | 1,682 | 947 | 44 | 425 |
| Reflective Window Glass ..... | 308 | 8,544 | 927 | 1,576 | 522 | 306 | 16 | 83 |
| External Overhangs or Awnings ..... | 1,233 | 17,242 | 1,737 | 2,900 | 961 | 594 | 59 | 124 |
| Skylights or Atriums ..... | 331 | 12,546 | 1,307 | 1,948 | 645 | 465 | 48 | 148 |
| Daylighting Sensors ..... | 74 | 2,868 | 377 | 623 | 206 | 124 | 3 | Q |
| Specular Reflectors ..... | 928 | 26,118 | 2,829 | 4,488 | 1,487 | 862 | 89 | 391 |
| Electronic Ballasts ..... | 2,577 | 46,882 | 4,746 | 7,543 | 2,498 | 1,513 | 156 | 578 |
| Energy Management and Control System (EMCS) For Lighting ..... | 60 | 4,781 | 538 | 939 | 311 | 133 | 6 | Q |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | |
| Heating ..... | 2,878 | 42,722 | 3,740 | 5,828 | 1,930 | 1,292 | 162 | 356 |
| Cooling ..... | 2,761 | 43,205 | 3,844 | 6,132 | 2,031 | 1,288 | 135 | 390 |
| Lighting ..... | 3,685 | 46,987 | 3,818 | 6,057 | 2,006 | 1,250 | 156 | 406 |
| Office Equipment ..... | 1,504 | 19,397 | 1,465 | 2,177 | 721 | 476 | 92 | Q |

## Table C1. Total Energy Consumption by Major Fuel for Non-Mall Buildings, 2003

| | All Buildings* | | Total Energy Consumption (trillion Btu) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Electricity | | | | |
| | Number of Buildings (thousand) | Floorspace (million square feet) | Sum of Major Fuels | Primary | Site | Natural Gas | Fuel Oil | District Heat |
| **All Buildings* .....** | 4,645 | 64,783 | 5,820 | 9,168 | 3,037 | 1,928 | 222 | 634 |

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 that use the particular energy source.

Notes: ● Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the "Total of Major Fuels" category, is site electricity plus the conversion losses in the generation, transmission, and distribution processes. ● 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.

# 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 |
| **Building Floorspace (Square Feet)** | | | | | | | |
| 1,001 to 5,000 | 2,552 | 6,789 | 12,812 | 10,348 | 2,155 | 292 | Q |
| 5,001 to 10,000 | 889 | 6,585 | 9,398 | 7,296 | 1,689 | 307 | Q |
| 10,001 to 25,000 | 738 | 11,535 | 13,140 | 10,001 | 2,524 | 232 | Q |
| 25,001 to 50,000 | 241 | 8,668 | 10,392 | 7,871 | 1,865 | 127 | Q |
| 50,001 to 100,000 | 129 | 9,057 | 11,897 | 8,717 | 1,868 | 203 | Q |
| 100,001 to 200,000 | 65 | 9,064 | 13,391 | 9,500 | 1,737 | 272 | Q |
| 200,001 to 500,000 | 25 | 7,176 | 10,347 | 7,323 | 1,343 | 272 | Q |
| Over 500,000 | 7 | 5,908 | 11,201 | 7,977 | 1,344 | 71 | 1,810 |
| **Principal Building Activity** | | | | | | | |
| Education | 386 | 9,874 | 12,008 | 8,111 | 1,889 | 362 | Q |
| Food Sales | 226 | 1,255 | 4,990 | 4,627 | 332 | Q | N |
| Food Service | 297 | 1,654 | 6,865 | 5,176 | 1,615 | Q | Q |
| Health Care | 129 | 3,163 | 7,440 | 4,882 | 1,538 | 79 | Q |
| Inpatient | 8 | 1,905 | 5,329 | 3,198 | 1,241 | 67 | Q |
| Outpatient | 121 | 1,258 | 2,111 | 1,684 | 297 | Q | Q |
| Lodging | 142 | 5,096 | 7,445 | 5,288 | 1,581 | 272 | Q |
| Retail (Other Than Mall) | 443 | 4,317 | 5,980 | 5,132 | 719 | 117 | Q |
| Office | 824 | 12,208 | 20,841 | 17,050 | 2,201 | 149 | 1,441 |
| Public Assembly | 277 | 3,939 | 5,790 | 3,943 | 775 | 230 | Q |
| Public Order and Safety | 71 | 1,090 | 1,917 | 1,216 | 234 | Q | Q |
| Religious Worship | 370 | 3,754 | 2,457 | 1,628 | 664 | Q | Q |
| Service | 622 | 4,050 | 4,779 | 3,485 | 1,096 | Q | Q |
| Warehouse and Storage | 597 | 10,078 | 6,894 | 5,034 | 976 | 74 | Q |
| Other | 79 | 1,738 | 4,420 | 3,049 | 684 | Q | Q |
| Vacant | 182 | 2,567 | 751 | 412 | 220 | Q | Q |
| **Year Constructed** | | | | | | | |
| Before 1920 | 330 | 3,769 | 4,131 | 2,319 | 1,134 | 304 | Q |
| 1920 to 1945 | 527 | 6,871 | 8,670 | 5,123 | 1,708 | 417 | 1,423 |
| 1946 to 1959 | 562 | 7,045 | 8,540 | 5,729 | 1,610 | 392 | Q |
| 1960 to 1969 | 579 | 8,101 | 11,378 | 7,714 | 1,872 | Q | Q |
| 1970 to 1979 | 731 | 10,772 | 16,129 | 12,637 | 2,466 | 182 | Q |
| 1980 to 1989 | 707 | 10,332 | 17,346 | 13,902 | 2,270 | 78 | Q |
| 1990 to 1999 | 876 | 12,360 | 18,761 | 15,236 | 2,452 | 72 | Q |
| 2000 to 2003 | 334 | 5,533 | 7,623 | 6,373 | 1,012 | Q | Q |
| **Census Region and Division** | | | | | | | |
| Northeast | 726 | 12,905 | 21,344 | 14,262 | 3,553 | 1,393 | 2,136 |
| New England | 233 | 2,964 | 4,851 | 3,125 | 673 | 557 | Q |
| Middle Atlantic | 493 | 9,941 | 16,493 | 11,137 | 2,880 | 836 | Q |
| Midwest | 1,266 | 17,080 | 21,521 | 14,172 | 4,844 | 176 | 2,329 |
| East North Central | 696 | 11,595 | 15,908 | 10,220 | 3,649 | Q | Q |
| West North Central | 571 | 5,485 | 5,613 | 3,952 | 1,195 | Q | Q |
| South | 1,775 | 23,489 | 31,595 | 25,540 | 3,866 | 125 | Q |
| South Atlantic | 874 | 12,258 | 17,563 | 14,155 | 1,934 | 112 | Q |
| East South Central | 348 | 3,393 | 4,569 | 3,348 | 817 | Q | Q |
| West South Central | 553 | 7,837 | 9,463 | 8,037 | 1,115 | 5 | Q |
| West | 878 | 11,310 | 18,118 | 15,057 | 2,261 | 81 | Q |
| Mountain | 299 | 3,675 | 5,629 | 4,272 | 1,089 | Q | Q |
| Pacific | 580 | 7,635 | 12,488 | 10,786 | 1,172 | 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 |
| **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 -- | | | | | | | |
| 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 | 6,268 | 14,068 | 10,175 | 1,702 | 125 | 2,066 |
| Any Escalators | 6 | 2,350 | 4,861 | 4,096 | Q | Q | Q |
| **Number of Workers (main shift)** | | | | | | | |
| Fewer than 5 | 2,653 | 15,492 | 13,615 | 9,503 | 2,308 | 578 | Q |
| 5 to 9 | 778 | 6,166 | 8,265 | 6,390 | 1,666 | 151 | Q |
| 10 to 19 | 563 | 7,803 | 9,936 | 7,647 | 1,841 | 254 | Q |
| 20 to 49 | 398 | 10,989 | 16,406 | 11,966 | 2,951 | 274 | Q |
| 50 to 99 | 147 | 7,934 | 11,165 | 8,532 | 1,780 | 204 | Q |
| 100 to 249 | 77 | 6,871 | 12,970 | 9,768 | 1,652 | 146 | Q |
| 250 or More | 30 | 9,528 | 20,222 | 15,224 | 2,327 | 169 | 2,502 |
| **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 | 591 | 10,334 | 15,040 | 11,559 | 2,373 | 309 | Q |
| 85 to 167 | 400 | 7,092 | 14,287 | 11,188 | 1,906 | 151 | Q |
| Open Continuously | 475 | 13,149 | 27,346 | 19,987 | 4,407 | 466 | 2,486 |
| **Ownership and Occupancy** | | | | | | | |
| Nongovernment Owned | 4,011 | 49,421 | 69,675 | 54,122 | 11,558 | 1,249 | 2,746 |
| Owner Occupied | 1,841 | 23,591 | 33,551 | 25,441 | 5,361 | 671 | 2,078 |
| Nonowner Occupied | 2,029 | 23,914 | 35,713 | 28,446 | 6,070 | 578 | Q |
| Unoccupied | 141 | 1,916 | Q | Q | 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 | 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 |
| 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 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 |
| **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** | | | | | | | |
| Brick, Stone or Stucco ..... | 2,044 | 32,817 | 48,399 | 34,133 | 8,403 | 1,135 | 4,728 |
| 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** | | | | | | | |
| 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 | Q |
| Interior Wall 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 | 1,520 |
| Lighting Upgrade ..... | 455 | 10,275 | 15,732 | 10,741 | 2,868 | 417 | 1,706 |
| Window Replacement ..... | 310 | 6,354 | 9,102 | 6,168 | 1,734 | 391 | Q |
| Plumbing System Upgrade ..... | 315 | 7,144 | 10,965 | 7,360 | 2,051 | 343 | 1,211 |
| Insulation Upgrade ..... | 227 | 4,015 | 5,868 | 4,065 | 978 | 170 | Q |
| Other Renovation ..... | 19 | 523 | 791 | 517 | Q | Q | Q |
| No Renovations Since 1980 ..... | 1,710 | 18,714 | 23,191 | 15,691 | 3,939 | 778 | Q |
| Building Newer than 1980 ..... | 1,917 | 28,225 | 43,729 | 35,511 | 5,734 | 192 | 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 |
| **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 | 372 | 3,204 | 3,303 | 2,985 | Q | 84 | Q |
| Other | 113 | 842 | 956 | 796 | 138 | Q | N |
| **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 | N |
| District Heat | 63 | 4,907 | 13,178 | 5,910 | 172 | 8 | 7,089 |
| Propane | 308 | 1,955 | 1,928 | 1,909 | Q | Q | 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)** | | | | | | | |
| 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 | Q | 201 | 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 | 3,625 | 56,940 | 87,739 | 66,555 | 13,718 | 1,387 | 6,079 |
| Buildings with Water Heating | 3,472 | 56,478 | 87,218 | 65,526 | 14,025 | 1,682 | 5,984 |
| Buildings with Cooking | 801 | 22,237 | 40,266 | 29,777 | 7,163 | 929 | 2,396 |
| Buildings with Manufacturing | 119 | 3,138 | 3,950 | 3,117 | 718 | 56 | Q |
| Buildings with Electricity 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

| | 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 |
| **Percent of Floorspace Heated** | | | | | | | |
| Not Heated ..... | 663 | 4,756 | 2,962 | 2,779 | Q | Q | Q |
| 1 to 50 ..... | 523 | 6,850 | 5,600 | 4,645 | 831 | 109 | Q |
| 51 to 99 ..... | 498 | 8,107 | 11,972 | 9,096 | 2,078 | 206 | Q |
| 100 ..... | 2,962 | 45,071 | 72,043 | 52,512 | 11,468 | 1,428 | 6,635 |
| **Percent of Floorspace Cooled** | | | | | | | |
| Not Cooled ..... | 1,020 | 7,843 | 4,838 | 2,476 | 807 | 389 | Q |
| 1 to 50 ..... | 985 | 16,598 | 15,503 | 10,901 | 3,465 | 728 | Q |
| 51 to 99 ..... | 629 | 13,211 | 22,446 | 16,916 | 3,341 | 355 | 1,833 |
| 100 ..... | 2,011 | 27,132 | 49,791 | 38,738 | 6,912 | 304 | Q |
| **Percent Lit When Open** | | | | | | | |
| Zero ..... | 47 | 293 | Q | Q | Q | Q | Q |
| 1 to 50 ..... | 929 | 10,203 | 8,599 | 5,942 | 1,768 | 407 | Q |
| 51 to 99 ..... | 1,108 | 18,288 | 28,253 | 20,893 | 4,324 | 539 | 2,498 |
| 100 ..... | 2,176 | 32,789 | 54,958 | 41,762 | 8,222 | 820 | 4,154 |
| Building Never Open/ Electricity Not Used ..... | 386 | 3,210 | 635 | 325 | 191 | Q | Q |
| **Percent Lit When Closed** | | | | | | | |
| Zero ..... | 1,964 | 17,385 | 18,308 | 13,104 | 3,185 | 418 | Q |
| 1 to 50 ..... | 1,882 | 30,948 | 43,011 | 32,796 | 6,620 | 831 | 2,764 |
| 51 to 100 ..... | 136 | 2,093 | 3,910 | 3,144 | 311 | Q | 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 ..... | 476 | 8,814 | 14,249 | 11,629 | 1,804 | 50 | Q |
| Packaged Heat Pumps ..... | 278 | 5,442 | 9,330 | 7,929 | 1,115 | Q | Q |
| Split-System Heat Pumps ..... | 166 | 2,581 | 3,696 | 2,946 | 361 | Q | Q |
| Individual Room Heat Pumps ..... | 58 | 2,691 | 4,199 | 3,289 | 648 | Q | Q |
| Furnaces ..... | 1,864 | 19,615 | 23,489 | 17,887 | 5,095 | 417 | Q |
| Individual Space Heaters ..... | 819 | 12,545 | 15,964 | 12,387 | 2,720 | 253 | Q |
| District Heat ..... | 65 | 5,166 | 13,505 | 6,051 | 269 | 8 | 7,177 |
| Boilers ..... | 579 | 20,423 | 31,052 | 22,045 | 7,418 | 1,337 | Q |
| Packaged Heating Units ..... | 953 | 18,021 | 29,902 | 24,318 | 4,477 | 139 | Q |
| Other ..... | 205 | 3,262 | 3,988 | 3,451 | 368 | 46 | Q |
| **Cooling Equipment (more than one may apply)** | | | | | | | |
| Residential-Type Central Air Conditioners ..... | 1,006 | 11,035 | 14,441 | 10,746 | 2,867 | 428 | Q |
| Heat Pumps ..... | 492 | 9,041 | 14,738 | 12,060 | 1,887 | 49 | Q |
| Packaged Heat Pumps ..... | 288 | 5,426 | 9,356 | 7,909 | 1,163 | Q | Q |
| Split-System Heat Pumps ..... | 174 | 2,606 | 3,776 | 3,005 | 382 | Q | Q |
| Individual Room Heat Pumps ..... | 58 | 2,940 | 4,621 | 3,721 | 660 | Q | Q |
| Individual Air Conditioners ..... | 742 | 12,558 | 16,175 | 11,268 | 3,040 | 790 | 1,077 |
| District Chilled Water ..... | 33 | 2,853 | 7,647 | 3,667 | 244 | 13 | Q |
| Central Chillers ..... | 111 | 11,636 | 22,448 | 17,065 | 3,461 | 205 | 1,717 |
| Packaged Air Conditioning Units ..... | 1,613 | 29,969 | 46,331 | 36,258 | 8,210 | 654 | 1,208 |
| Swamp Coolers ..... | 122 | 1,561 | 2,350 | 1,808 | 520 | Q | Q |
| Other ..... | 40 | 1,232 | 2,096 | 1,540 | 377 | 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 | Q | Q | Q | Q | 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 |
| Commercial Refrigeration | 1,007 | 26,768 | 50,937 | 38,581 | 8,073 | 961 | 3,322 |
| 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 |
| Laser Printers | 1,970 | 33,012 | 47,880 | 36,031 | 7,946 | 999 | 2,904 |
| Inkjet Printers | 1,420 | 32,210 | 52,520 | 39,920 | 7,784 | 582 | 4,234 |
| FAX Machines | 2,715 | 52,373 | 80,902 | 60,928 | 12,641 | 1,440 | 5,892 |
| Photocopiers | 1,939 | 46,257 | 70,079 | 52,409 | 10,542 | 1,198 | 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 | 1,765 | 121 | Q |
| 50 to 99 | 110 | 5,376 | 7,888 | 5,664 | 1,124 | 259 | Q |
| 100 to 249 | 79 | 6,690 | 10,790 | 7,675 | 1,472 | 126 | Q |
| 250 or More | 38 | 9,963 | 20,456 | 15,085 | 2,377 | 207 | 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 |
| 10 to 19 | 30 | 3,027 | 6,267 | 4,457 | 665 | 38 | Q |
| 20 to 49 | 17 | 2,583 | 4,740 | 3,685 | 518 | 52 | Q |
| 50 or More | 10 | 2,748 | 6,594 | 5,118 | 623 | 40 | 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 |
| **Number of Photocopiers** | | | | | | | |
| None ..... | 2,706 | 18,526 | 22,498 | 16,622 | 3,983 | 578 | Q |
| One ..... | 1,250 | 15,475 | 18,436 | 14,098 | 3,295 | 428 | Q |
| 2 to 4 ..... | 549 | 15,082 | 20,980 | 15,555 | 3,518 | 315 | Q |
| 5 to 9 ..... | 85 | 5,515 | 9,441 | 7,138 | 1,290 | 268 | Q |
| 10 or More ..... | 54 | 10,185 | 21,223 | 15,618 | 2,439 | 187 | 2,979 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | |
| 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 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 | Q |
| Specular Reflectors ..... | 928 | 26,118 | 43,466 | 32,092 | 6,179 | 684 | 4,511 |
| Electronic Ballasts ..... | 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 | Q |
| **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 | 4,461 |
| 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 | 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 |

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 that use the particular energy source.

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.

# 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 |
| Pacific | 580 | 7,635 | 13.2 | 530 | 913 | 69.4 | 52.1 |

## 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 |
| **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 ..... | 4,011 | 49,421 | 12.3 | 4,203 | 1,048 | 85.1 | 78.8 |
| Owner Occupied ..... | 1,841 | 23,591 | 12.8 | 2,060 | 1,119 | 87.3 | 76.0 |
| Nonowner Occupied ..... | 2,029 | 23,914 | 11.8 | 2,115 | 1,042 | 88.4 | 80.6 |
| Unoccupied ..... | 141 | 1,916 | 13.6 | Q | Q | Q | . |
| Government Owned ..... | 635 | 15,363 | 24.2 | 1,617 | 2,548 | 105.3 | 83.1 |
| Federal ..... | 46 | 1,956 | 42.9 | 303 | 6,642 | 155.0 | 124.6 |
| State ..... | 164 | 3,808 | 23.2 | 513 | 3,125 | 134.8 | 71.3 |
| Local ..... | 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 |

## 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 |
| **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** | | | | | | | |
| 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 |

## 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 |
| **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)** | | | | | | | |
| 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 |

## 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 |
| **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)** | | | | | | | |
| 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 |

## 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 |
| **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 |
| 50 or More ..... | 10 | 2,748 | 276.6 | 382 | 38,458 | 139.0 | 60.2 |

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## 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 |
| **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 |

## 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 |

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.

# 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 |

## 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 |
| **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 |

## 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 |
| **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 |
| 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 |

## 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 |
| **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 |
| 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 |

## 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 |
| **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 |
| 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 |

## 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 |
| **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 |

## 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 |
| **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 |

## 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 |

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.

# Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Building Floorspace (Square Feet)** | | | | | | | | | | | | |
| 1,001 to 5,000 | 118 | 206 | 240 | 108 | 1,025 | 1,895 | 2,533 | 1,336 | 115.1 | 108.5 | 94.9 | 80.6 |
| 5,001 to 10,000 | 102 | 117 | 185 | 112 | 1,123 | 1,565 | 2,658 | 1,239 | 90.7 | 74.7 | 69.5 | 90.8 |
| 10,001 to 25,000 | 148 | 228 | 250 | 150 | 1,972 | 3,098 | 4,378 | 2,087 | 75.3 | 73.6 | 57.2 | 71.7 |
| 25,001 to 50,000 | 106 | 247 | 205 | 114 | 1,292 | 2,567 | 3,168 | 1,643 | 82.4 | 96.3 | 64.8 | 69.4 |
| 50,001 to 100,000 | 203 | 212 | 255 | 89 | 2,040 | 2,260 | 3,435 | 1,322 | 99.4 | 93.6 | 74.3 | 67.6 |
| 100,001 to 200,000 | 209 | 252 | 375 | 97 | 2,117 | 2,296 | 3,475 | 1,177 | 98.8 | 109.8 | 107.9 | 82.7 |
| 200,001 to 500,000 | 189 | 244 | 191 | 100 | 1,781 | 2,196 | 1,914 | 1,286 | 106.3 | 111.1 | 99.9 | 78.1 |
| Over 500,000 | Q | 184 | 246 | 140 | 1,556 | 1,203 | 1,928 | 1,221 | Q | 153.2 | 127.8 | 115.0 |
| **Principal Building Activity** | | | | | | | | | | | | |
| Education | 171 | 219 | 301 | 129 | 1,683 | 2,541 | 3,983 | 1,667 | 101.6 | 86.3 | 75.5 | 77.6 |
| Food Sales | Q | 70 | 91 | Q | 238 | 320 | 487 | Q | Q | 219.1 | 187.7 | Q |
| Food Service | Q | 99 | 217 | 65 | 172 | 453 | 764 | 265 | Q | 218.8 | 283.4 | 243.8 |
| Health Care | 114 | 164 | 217 | 99 | 535 | 798 | 1,277 | 553 | 212.2 | 205.6 | 169.8 | 179.6 |
| Inpatient | Q | 119 | 190 | 67 | 358 | 438 | 838 | 270 | Q | 272.2 | 226.7 | 246.8 |
| Outpatient | Q | 45 | 27 | 33 | 177 | 359 | 438 | 283 | Q | 124.4 | 60.9 | 115.3 |
| Lodging | 108 | 125 | 164 | 113 | 1,171 | 1,144 | 1,694 | 1,087 | Q | 109.0 | 96.9 | 103.7 |
| Retail (Other Than Mall) | 41 | 90 | 127 | 61 | 630 | 880 | 1,844 | 963 | 65.0 | 102.7 | 68.7 | 63.2 |
| Office | 305 | 325 | 329 | 175 | 3,012 | 2,989 | 3,782 | 2,425 | 101.2 | 108.8 | 87.0 | 72.1 |
| Public Assembly | 93 | 103 | 109 | 64 | 1,048 | 1,012 | 1,174 | 706 | Q | 101.7 | 93.2 | 91.2 |
| Public Order and Safety | Q | Q | Q | Q | 362 | 221 | 373 | Q | Q | Q | Q | Q |
| Religious Worship | 33 | 59 | 57 | 14 | 627 | 1,115 | 1,498 | 515 | 52.1 | 52.8 | 38.3 | 27.6 |
| Service | 59 | 110 | 90 | 53 | 740 | 1,289 | 1,358 | 664 | 79.8 | 85.0 | 66.3 | 80.0 |
| Warehouse and Storage | 63 | 225 | 106 | 61 | 1,523 | 3,017 | 3,966 | 1,572 | 41.6 | 74.7 | 26.7 | 39.0 |
| Other | Q | Q | Q | Q | 649 | 316 | Q | 186 | Q | Q | Q | Q |
| Vacant | Q | Q | Q | Q | 517 | 984 | 701 | Q | Q | Q | Q | Q |
| **Year Constructed** | | | | | | | | | | | | |
| Before 1920 | 114 | 123 | 41 | Q | 1,406 | 1,552 | 516 | 295 | 81.4 | 79.4 | 79.5 | Q |
| 1920 to 1945 | 221 | 262 | 79 | 59 | 2,504 | 2,099 | 1,348 | 920 | 88.2 | 124.6 | 58.3 | 64.1 |
| 1946 to 1959 | 189 | 165 | 138 | 74 | 2,094 | 2,027 | 1,795 | 1,128 | 90.5 | 81.2 | 76.8 | 65.2 |
| 1960 to 1969 | 211 | 205 | 201 | 120 | 1,737 | 2,229 | 2,538 | 1,597 | 121.4 | 91.8 | 79.2 | 75.4 |
| 1970 to 1979 | 191 | 322 | 320 | 190 | 1,723 | 3,237 | 3,726 | 2,086 | 111.0 | 99.5 | 85.8 | 91.1 |
| 1980 to 1989 | 146 | 221 | 449 | 218 | 1,374 | 1,949 | 4,768 | 2,241 | 106.2 | 113.3 | 94.2 | 97.4 |
| 1990 to 1999 | 118 | 286 | 524 | 170 | 1,370 | 2,746 | 6,241 | 2,004 | 85.9 | 104.0 | 84.0 | 84.9 |
| 2000 to 2003 | Q | 107 | 197 | 56 | 698 | 1,240 | 2,557 | 1,038 | Q | 86.3 | 77.1 | 54.2 |
| **Climate Zone: 30-Year Average** | | | | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | | | | |
| More than 7,000 HDD | 197 | 539 | N | 254 | 2,416 | 5,615 | N | 2,591 | 81.6 | 96.0 | N | 98.0 |
| 5,500-7,000 HDD | 525 | 1,038 | N | 197 | 5,398 | 9,867 | N | 2,070 | 97.3 | 105.2 | N | 95.4 |
| 4,000-5,499 HDD | 549 | 113 | 407 | Q | 5,092 | 1,597 | 4,122 | 693 | 107.8 | 70.5 | 98.7 | 94.0 |
| Fewer than 4,000 HDD | N | N | 884 | 329 | N | N | 10,338 | 5,401 | N | N | 85.5 | 60.9 |
| 2,000 CDD or More and -- | | | | | | | | | | | | |
| Fewer than 4,000 HDD | N | N | 658 | 66 | N | N | 9,029 | 555 | N | N | 72.8 | 118.8 |
| **Number of Floors** | | | | | | | | | | | | |
| One | 271 | 565 | 736 | 365 | 3,151 | 6,104 | 11,757 | 4,969 | 86.0 | 92.5 | 62.6 | 73.4 |
| Two | 254 | 429 | 401 | 227 | 3,029 | 5,177 | 4,946 | 3,118 | 83.8 | 82.9 | 81.1 | 72.7 |
| Three | 156 | 236 | 164 | 64 | 2,083 | 2,584 | 1,938 | 896 | 74.9 | 91.4 | 84.4 | 71.0 |
| Four to Nine | 368 | 380 | 435 | 153 | 3,003 | 2,660 | 3,094 | 1,328 | 122.6 | 142.9 | 140.6 | 115.2 |
| Ten or More | 222 | 79 | 212 | Q | 1,640 | 555 | 1,754 | 999 | 135.5 | 142.6 | 121.1 | 103.1 |

## Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | | | | |
| Any Elevators | 723 | 793 | 938 | 372 | 6,137 | 6,677 | 7,949 | 3,855 | 117.8 | 118.8 | 118.0 | 96.5 |
| Number of Elevators | | | | | | | | | | | | |
| One | 167 | 289 | 200 | 77 | 1,585 | 3,084 | 2,475 | 1,077 | 105.1 | 93.5 | 80.7 | 71.3 |
| Two to Five | 302 | 334 | 393 | 128 | 2,971 | 2,704 | 3,094 | 1,360 | 101.7 | 123.5 | 127.1 | 94.3 |
| Six or More | 254 | 171 | 345 | 167 | 1,581 | 889 | 2,380 | 1,418 | 160.8 | 192.0 | 144.9 | 117.8 |
| Any Escalators | Q | Q | 130 | Q | 541 | Q | 1,002 | Q | Q | Q | 129.4 | Q |
| **Number of Workers (main shift)** | | | | | | | | | | | | |
| Fewer than 5 | 153 | 341 | 211 | 113 | 2,376 | 4,958 | 5,670 | 2,489 | 64.3 | 68.8 | 37.1 | 45.3 |
| 5 to 9 | 89 | 131 | 169 | 80 | 1,085 | 1,463 | 2,595 | 1,023 | 81.7 | 89.4 | 65.2 | 78.1 |
| 10 to 19 | 129 | 182 | 199 | 84 | 1,872 | 2,081 | 2,741 | 1,109 | 68.9 | 87.5 | 72.7 | 75.8 |
| 20 to 49 | 208 | 310 | 366 | 167 | 2,314 | 2,856 | 3,883 | 1,935 | 89.7 | 108.5 | 94.2 | 86.1 |
| 50 to 99 | 165 | 231 | 218 | 113 | 1,598 | 2,311 | 2,654 | 1,370 | 103.4 | 100.0 | 82.3 | 82.5 |
| 100 to 249 | 179 | 205 | 332 | 121 | 1,331 | 1,609 | 2,534 | 1,397 | 134.6 | 127.3 | 131.2 | 86.8 |
| 250 or More | 349 | 290 | 453 | 234 | 2,329 | 1,800 | 3,413 | 1,986 | 149.6 | 161.0 | 132.7 | 117.6 |
| **Weekly Operating Hours** | | | | | | | | | | | | |
| Fewer than 40 | 35 | 83 | 68 | 41 | 923 | 2,300 | 2,544 | 1,096 | 37.8 | 36.2 | 26.8 | 37.7 |
| 40 to 48 | 161 | 239 | 257 | 117 | 2,111 | 2,783 | 4,567 | 2,161 | 76.3 | 85.8 | 56.2 | 54.0 |
| 49 to 60 | 221 | 447 | 347 | 163 | 3,098 | 4,614 | 5,556 | 2,455 | 71.4 | 97.0 | 62.5 | 66.5 |
| 61 to 84 | 195 | 251 | 329 | 150 | 2,048 | 2,583 | 3,754 | 1,950 | 95.0 | 97.2 | 87.5 | 76.8 |
| 85 to 167 | 161 | 286 | 320 | 122 | 1,317 | 2,008 | 2,459 | 1,308 | 122.5 | 142.7 | 130.1 | 93.1 |
| Open Continuously | 498 | 383 | 627 | 318 | 3,407 | 2,793 | 4,608 | 2,340 | 146.2 | 137.1 | 136.1 | 136.0 |
| **Ownership and Occupancy** | | | | | | | | | | | | |
| Nongovernment Owned | 993 | 1,143 | 1,408 | 659 | 10,389 | 12,470 | 17,826 | 8,736 | 95.6 | 91.7 | 79.0 | 75.5 |
| Owner Occupied | 581 | 588 | 627 | 265 | 5,904 | 6,171 | 7,869 | 3,648 | 98.3 | 95.3 | 79.6 | 72.7 |
| Nonowner Occupied | 408 | 541 | 774 | 392 | 4,204 | 5,539 | 9,358 | 4,813 | 96.9 | 97.7 | 82.7 | 81.4 |
| Unoccupied | Q | Q | Q | Q | Q | 760 | 600 | Q | Q | Q | Q | Q |
| Government Owned | 278 | 547 | 541 | 252 | 2,517 | 4,610 | 5,662 | 2,574 | 110.4 | 118.6 | 95.5 | 97.8 |
| Federal | Q | Q | 66 | Q | Q | Q | 521 | Q | Q | Q | 126.9 | Q |
| State | Q | 119 | 219 | 88 | 599 | 764 | 1,718 | 727 | Q | 156.1 | 127.7 | 121.3 |
| Local | 174 | 251 | 255 | 120 | 1,706 | 2,925 | 3,423 | 1,545 | 101.7 | 85.9 | 74.6 | 78.0 |
| **Vacancy Status** | | | | | | | | | | | | |
| Completely Vacant | Q | Q | Q | Q | Q | 892 | 652 | Q | Q | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 297 | 322 | 302 | 164 | 3,117 | 3,119 | 4,061 | 2,085 | 95.3 | 103.3 | 74.4 | 78.9 |
| Not At All Vacant | 962 | 1,340 | 1,639 | 741 | 9,271 | 12,976 | 18,726 | 8,860 | 103.7 | 103.3 | 87.5 | 83.6 |
| **Number of Establishments** | | | | | | | | | | | | |
| One | 841 | 1,262 | 1,374 | 689 | 8,061 | 12,359 | 16,947 | 7,776 | 104.4 | 102.1 | 81.1 | 88.6 |
| 2 to 5 | 245 | 291 | 324 | 133 | 2,517 | 2,803 | 3,740 | 1,900 | 97.2 | 103.8 | 86.6 | 70.0 |
| 6 to 10 | 58 | 56 | 76 | 25 | 571 | 510 | 550 | 327 | 101.9 | 110.1 | 138.2 | 76.9 |
| 11 to 20 | Q | Q | 62 | Q | 722 | 301 | 589 | 340 | Q | Q | 104.7 | Q |
| More than 20 | Q | Q | 105 | Q | 696 | Q | 1,011 | 688 | Q | Q | 104.2 | Q |
| Currently Unoccupied | Q | Q | Q | Q | Q | 892 | 652 | Q | Q | Q | Q | Q |

# Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Predominant Exterior Wall Material** | | | | | | | | | | | | |
| Brick, Stone or Stucco | 770 | 1,005 | 1,009 | 403 | 7,248 | 9,248 | 11,574 | 4,747 | 106.2 | 108.7 | 87.2 | 84.8 |
| Concrete (Block or Poured) | 187 | 288 | 343 | 156 | 2,184 | 2,887 | 3,985 | 1,777 | 85.4 | 99.9 | 86.0 | 88.0 |
| Concrete Panels | Q | 150 | 288 | 153 | 599 | 1,230 | 2,758 | 1,972 | Q | 121.6 | 104.6 | 77.7 |
| Siding or Shingles | 76 | 71 | 73 | 57 | 1,193 | 1,183 | 1,045 | 698 | 63.4 | 60.0 | 69.9 | 81.3 |
| Metal Panels | 104 | 95 | 165 | 99 | 1,054 | 1,880 | 3,426 | 1,552 | 98.7 | 50.5 | 48.2 | 63.7 |
| Window Glass | Q | Q | Q | Q | Q | Q | 280 | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | 303 | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | | | | |
| Built-Up | 414 | 586 | 707 | 378 | 4,068 | 5,262 | 7,430 | 4,411 | 101.7 | 111.3 | 95.1 | 85.6 |
| Shingles (Not Wood) | 207 | 258 | 236 | 122 | 2,022 | 3,199 | 3,325 | 1,649 | 102.4 | 80.7 | 70.9 | 73.7 |
| Metal Surfacing | 58 | 161 | 290 | 121 | 1,027 | 2,663 | 6,309 | 1,946 | 56.1 | 60.3 | 46.0 | 62.3 |
| Synthetic or Rubber | 468 | 482 | 514 | 185 | 4,116 | 4,443 | 4,298 | 1,873 | 113.7 | 108.5 | 119.6 | 98.7 |
| Slate or Tile | Q | 30 | 79 | 47 | 480 | 306 | 1,056 | 620 | Q | 98.3 | 74.9 | 75.4 |
| Wooden Materials | Q | Q | Q | Q | Q | Q | 301 | 244 | Q | Q | Q | Q |
| Concrete | Q | Q | Q | Q | Q | Q | 426 | 400 | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | | | | |
| Any Type of Renovation Since 1980 | 537 | 566 | 416 | 248 | 5,104 | 5,437 | 4,462 | 2,841 | 105.2 | 104.0 | 93.2 | 87.3 |
| Addition or Annex | 187 | 241 | 195 | 110 | 1,797 | 1,970 | 1,804 | 979 | 104.0 | 122.4 | 108.1 | 112.1 |
| Reduction In Floorspace | Q | Q | Q | Q | 404 | Q | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 419 | 426 | 285 | 188 | 3,952 | 3,879 | 3,105 | 2,183 | 106.1 | 109.8 | 91.7 | 85.9 |
| Wall or Roof Replacement | 260 | 230 | 171 | 115 | 2,676 | 2,238 | 1,863 | 1,294 | 97.2 | 103.0 | 92.0 | 89.2 |
| Interior Wall Re-Configuration | 265 | 294 | 201 | 151 | 2,489 | 2,586 | 1,936 | 1,507 | 106.5 | 113.9 | 103.7 | 100.0 |
| HVAC Equipment Upgrade | 338 | 369 | 278 | 172 | 3,027 | 3,332 | 2,584 | 1,825 | 111.7 | 110.8 | 107.4 | 94.0 |
| Lighting Upgrade | 365 | 337 | 215 | 168 | 3,350 | 3,059 | 2,092 | 1,775 | 109.0 | 110.2 | 102.7 | 94.8 |
| Window Replacement | 271 | 184 | 82 | 76 | 2,750 | 1,847 | 916 | 842 | 98.6 | 99.5 | 89.1 | 90.8 |
| Plumbing System Upgrade | 261 | 215 | 148 | 124 | 2,511 | 1,898 | 1,366 | 1,369 | 103.8 | 113.3 | 108.6 | 90.8 |
| Insulation Upgrade | 138 | 115 | 84 | 43 | 1,370 | 1,212 | 857 | 576 | 101.0 | 95.2 | 97.6 | 75.2 |
| Other Renovation | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No Renovations Since 1980 | 390 | 511 | 362 | 219 | 4,360 | 5,708 | 5,462 | 3,185 | 89.4 | 89.5 | 66.3 | 68.7 |
| Building Newer than 1980 | 344 | 613 | 1,170 | 445 | 3,441 | 5,935 | 13,565 | 5,283 | 100.0 | 103.4 | 86.3 | 84.1 |
| **Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 1,271 | 1,689 | 1,948 | 911 | 12,809 | 16,701 | 22,766 | 11,030 | 99.2 | 101.2 | 85.6 | 82.6 |
| Natural Gas | 997 | 1,379 | 1,389 | 726 | 9,181 | 13,163 | 13,311 | 7,813 | 108.6 | 104.8 | 104.4 | 92.9 |
| Fuel Oil | 636 | 389 | 488 | 247 | 6,080 | 2,832 | 4,122 | 2,123 | 104.6 | 137.4 | 118.4 | 116.2 |
| District Heat | Q | 336 | 324 | Q | 1,363 | 1,648 | 1,766 | 667 | Q | 204.2 | 183.7 | Q |
| District Chilled Water | Q | Q | 202 | Q | 620 | 596 | 1,150 | 487 | Q | Q | 175.3 | Q |
| Propane | 98 | 211 | 148 | 127 | 1,354 | 2,189 | 2,360 | 1,173 | 72.1 | 96.6 | 62.9 | 108.2 |
| Other | Q | 48 | Q | Q | 222 | 505 | 306 | 367 | Q | 94.3 | Q | 93.7 |

## Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 444 | 547 | 1,013 | 369 | 4,405 | 6,223 | 13,058 | 4,914 | 100.8 | 88.0 | 77.6 | 75.1 |
| Natural Gas | 778 | 1,227 | 1,082 | 595 | 7,238 | 12,180 | 10,693 | 6,848 | 107.5 | 100.7 | 101.2 | 86.9 |
| Fuel Oil | 358 | 108 | 92 | Q | 3,927 | 916 | 897 | 247 | 91.2 | 117.8 | 102.5 | Q |
| District Heat | Q | 335 | 318 | Q | 1,260 | 1,640 | 1,683 | 615 | Q | 204.0 | 188.7 | Q |
| Propane | Q | 27 | 70 | Q | 743 | 806 | 1,195 | 459 | Q | 33.7 | 58.7 | 80.4 |
| Other | Q | Q | Q | Q | Q | 272 | Q | Q | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | | | | |
| Electricity | 99 | 205 | 596 | 189 | 1,253 | 2,545 | 9,084 | 3,114 | 78.8 | 80.5 | 65.6 | 60.7 |
| Natural Gas | 677 | 1,112 | 950 | 541 | 6,439 | 11,321 | 9,299 | 5,911 | 105.1 | 98.2 | 102.2 | 91.5 |
| Fuel Oil | 240 | Q | Q | Q | 3,250 | 229 | 232 | Q | 73.9 | Q | Q | Q |
| District Heat | Q | 318 | 304 | Q | 1,205 | 1,531 | 1,614 | 557 | Q | 207.8 | 188.6 | Q |
| Propane | Q | Q | 22 | Q | Q | 569 | 674 | 332 | Q | 31.7 | 33.0 | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 1,074 | 1,387 | 1,767 | 792 | 10,402 | 13,781 | 20,623 | 9,515 | 103.3 | 100.7 | 85.7 | 83.3 |
| Natural Gas | Q | Q | Q | Q | 353 | Q | Q | Q | Q | Q | Q | Q |
| District Chilled Water | Q | Q | 202 | Q | 620 | 596 | 1,150 | 487 | Q | Q | 175.3 | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 404 | 564 | 909 | 268 | 5,125 | 6,477 | 11,882 | 4,007 | 78.9 | 87.1 | 76.5 | 66.8 |
| Natural Gas | 660 | 942 | 1,005 | 598 | 5,601 | 8,799 | 8,306 | 6,114 | 117.9 | 107.1 | 121.0 | 97.8 |
| Fuel Oil | 155 | Q | Q | Q | 1,542 | Q | Q | Q | 100.5 | Q | Q | Q |
| District Heat | Q | Q | 171 | Q | 929 | 749 | 956 | 454 | Q | Q | 179.2 | Q |
| Propane | Q | Q | 27 | Q | 261 | 390 | 537 | Q | Q | 42.9 | 50.5 | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 315 | 449 | 598 | 217 | 2,495 | 3,784 | 4,900 | 1,982 | 126.2 | 118.8 | 122.1 | 109.3 |
| Natural Gas | 458 | 538 | 774 | 303 | 3,580 | 3,965 | 5,480 | 2,412 | 128.0 | 135.7 | 141.2 | 125.7 |
| Propane | 28 | Q | 33 | Q | 396 | 233 | 451 | 381 | 70.0 | Q | 74.3 | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | | | | |
| Buildings with Space Heating | 1,264 | 1,682 | 1,900 | 858 | 12,596 | 16,331 | 20,998 | 10,102 | 100.3 | 103.0 | 90.5 | 85.0 |
| Buildings with Cooling | 1,170 | 1,511 | 1,927 | 857 | 10,954 | 14,484 | 21,553 | 9,950 | 106.8 | 104.3 | 89.4 | 86.1 |
| Buildings with Water Heating | 1,213 | 1,537 | 1,869 | 879 | 11,789 | 14,928 | 19,913 | 9,848 | 102.9 | 103.0 | 93.8 | 89.3 |
| Buildings with Cooking | 618 | 731 | 967 | 397 | 5,016 | 5,850 | 7,881 | 3,489 | 123.1 | 124.9 | 122.7 | 113.8 |
| Buildings with Manufacturing | 84 | 72 | 42 | 56 | 1,013 | 798 | 642 | 685 | 83.1 | 90.3 | 65.4 | 81.9 |
| Buildings with Electricity Generation | 457 | 487 | 495 | 254 | 3,245 | 3,317 | 4,017 | 2,241 | 140.8 | 146.8 | 123.3 | 113.2 |
| **Percent of Floorspace Heated** | | | | | | | | | | | | |
| Not Heated | Q | Q | 48 | 53 | 309 | 748 | 2,491 | 1,208 | Q | Q | 19.2 | 43.7 |
| 1 to 50 | 57 | 56 | 121 | 65 | 1,387 | 1,130 | 2,841 | 1,491 | 41.0 | 49.8 | 42.4 | 43.4 |
| 51 to 99 | 150 | 176 | 253 | 167 | 1,539 | 1,727 | 2,891 | 1,950 | 97.5 | 102.1 | 87.5 | 85.8 |
| 100 | 1,057 | 1,450 | 1,527 | 626 | 9,671 | 13,474 | 15,266 | 6,661 | 109.3 | 107.6 | 100.0 | 94.0 |

# Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Percent of Floorspace Cooled** | | | | | | | | | | | | |
| Not Cooled | 101 | 179 | 22 | 54 | 1,952 | 2,596 | 1,936 | 1,359 | 51.9 | 68.8 | 11.1 | 39.9 |
| 1 to 50 | 324 | 336 | 208 | 158 | 4,270 | 4,757 | 4,915 | 2,656 | 76.0 | 70.7 | 42.3 | 59.3 |
| 51 to 99 | 377 | 435 | 378 | 223 | 3,101 | 3,761 | 3,903 | 2,446 | 121.5 | 115.7 | 96.8 | 91.1 |
| 100 | 468 | 739 | 1,341 | 476 | 3,582 | 5,966 | 12,735 | 4,849 | 130.8 | 124.0 | 105.3 | 98.3 |
| **Percent Lit When Open** | | | | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 157 | 178 | 133 | 72 | 2,750 | 2,753 | 3,189 | 1,512 | 57.3 | 64.8 | 41.6 | 47.4 |
| 51 to 99 | 426 | 514 | 514 | 282 | 3,599 | 5,299 | 6,134 | 3,256 | 118.2 | 97.0 | 83.9 | 86.6 |
| 100 | 678 | 970 | 1,288 | 553 | 6,051 | 7,781 | 12,874 | 6,083 | 112.1 | 124.7 | 100.1 | 90.9 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | Q | 465 | 1,227 | 1,108 | Q | Q | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | | | | |
| Zero | 189 | 434 | 333 | 176 | 2,807 | 5,174 | 6,292 | 3,112 | 67.5 | 83.9 | 52.9 | 56.5 |
| 1 to 50 | 542 | 790 | 894 | 399 | 6,279 | 8,293 | 11,027 | 5,349 | 86.3 | 95.3 | 81.1 | 74.7 |
| 51 to 100 | Q | 82 | 94 | Q | Q | 499 | 1,013 | 238 | Q | 164.3 | 92.4 | Q |
| Building Never Closed/ Electricity Not Used | 498 | 383 | 627 | 318 | 3,476 | 3,114 | 5,157 | 2,611 | 143.3 | 123.1 | 121.7 | 121.9 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | | | | |
| Heat Pumps | 177 | 96 | 395 | 136 | 1,213 | 1,058 | 4,942 | 1,600 | 146.1 | 91.0 | 79.9 | 85.2 |
| Packaged Heat Pumps | Q | 68 | 257 | Q | 744 | 738 | 2,928 | 1,031 | Q | 92.7 | 87.6 | 95.1 |
| Split-System Heat Pumps | Q | Q | 127 | 30 | Q | Q | 1,862 | 368 | Q | Q | 68.1 | 82.3 |
| Individual Room Heat Pumps | Q | Q | 101 | 34 | 544 | 358 | 1,250 | 538 | Q | Q | 80.5 | 62.5 |
| Furnaces | 275 | 596 | 397 | 225 | 3,596 | 7,229 | 5,715 | 3,075 | 76.6 | 82.4 | 69.4 | 73.1 |
| Individual Space Heaters | 263 | 339 | 276 | 146 | 2,786 | 4,169 | 3,608 | 1,981 | 94.2 | 81.4 | 76.5 | 73.6 |
| District Heat | Q | 330 | 318 | Q | 1,245 | 1,623 | 1,683 | 615 | Q | 203.5 | 188.7 | Q |
| Boilers | 661 | 656 | 559 | 368 | 6,228 | 6,141 | 4,393 | 3,662 | 106.1 | 106.8 | 127.4 | 100.5 |
| Packaged Heating Units | 365 | 401 | 722 | 241 | 2,912 | 3,666 | 8,130 | 3,312 | 125.2 | 109.4 | 88.8 | 72.7 |
| Other | Q | 74 | 85 | 33 | 579 | 820 | 1,381 | 481 | Q | 90.7 | 61.4 | 67.5 |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | | | | |
| Residential-Type Central Air Conditioners | 237 | 343 | 255 | 90 | 2,391 | 3,609 | 3,854 | 1,181 | 99.1 | 94.9 | 66.0 | 75.9 |
| Heat Pumps | 183 | 99 | 406 | 149 | 1,270 | 1,063 | 4,923 | 1,785 | 143.8 | 93.5 | 82.4 | 83.7 |
| Packaged Heat Pumps | Q | 72 | 255 | Q | 788 | 760 | 2,849 | 1,030 | Q | 95.1 | 89.4 | 94.0 |
| Split-System Heat Pumps | Q | Q | 132 | 32 | Q | Q | 1,868 | 404 | Q | Q | 70.5 | 79.6 |
| Individual Room Heat Pumps | Q | Q | 108 | 49 | 557 | 358 | 1,290 | 734 | Q | Q | 83.6 | 66.6 |
| Individual Air Conditioners | 352 | 320 | 272 | 136 | 3,687 | 3,488 | 3,635 | 1,749 | 95.4 | 91.8 | 74.7 | 77.8 |
| District Chilled Water | Q | Q | 202 | Q | 620 | 596 | 1,150 | 487 | Q | Q | 175.3 | Q |
| Central Chillers | 294 | 404 | 600 | 233 | 1,852 | 2,842 | 4,854 | 2,088 | 158.6 | 142.1 | 123.7 | 111.7 |
| Packaged Air Conditioning Units | 657 | 851 | 897 | 457 | 6,000 | 8,086 | 10,401 | 5,482 | 109.6 | 105.2 | 86.2 | 83.3 |
| Swamp Coolers | Q | Q | Q | 134 | Q | Q | Q | 1,342 | Q | Q | Q | 100.1 |
| Other | Q | Q | Q | Q | Q | 330 | 430 | Q | Q | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | | | | |
| Heating | 304 | 461 | 370 | 232 | 3,974 | 5,026 | 4,815 | 2,588 | 76.5 | 91.8 | 76.8 | 89.6 |
| Cooling | 535 | 597 | 522 | 295 | 5,453 | 5,752 | 6,415 | 3,374 | 98.1 | 103.8 | 81.3 | 87.5 |

# Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Water Heating Equipment** | | | | | | | | | | | | |
| Centralized System | 828 | 1,000 | 1,094 | 510 | 7,770 | 9,724 | 11,537 | 5,640 | 106.6 | 102.8 | 94.9 | 90.4 |
| Distributed System | 179 | 228 | 312 | 117 | 2,325 | 2,670 | 4,564 | 1,981 | 77.1 | 85.2 | 68.3 | 58.9 |
| Combination of Centralized and Distributed System | 206 | 310 | 463 | 252 | 1,695 | 2,534 | 3,812 | 2,227 | 121.4 | 122.3 | 121.4 | 113.3 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | | | | |
| Incandescent | 860 | 1,132 | 1,320 | 604 | 8,102 | 10,973 | 13,045 | 6,408 | 106.2 | 103.2 | 101.2 | 94.3 |
| Standard Fluorescent | 1,230 | 1,637 | 1,886 | 891 | 12,159 | 15,708 | 21,222 | 10,599 | 101.2 | 104.2 | 88.9 | 84.1 |
| Compact Fluorescent | 744 | 837 | 1,071 | 556 | 6,091 | 6,828 | 8,881 | 5,772 | 122.2 | 122.6 | 120.6 | 96.3 |
| High Intensity Discharge | 492 | 748 | 620 | 282 | 4,379 | 6,620 | 6,229 | 3,416 | 112.3 | 113.0 | 99.5 | 82.5 |
| Halogen | 430 | 573 | 675 | 303 | 3,581 | 4,661 | 6,193 | 3,268 | 120.1 | 122.9 | 109.0 | 92.9 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | | | | |
| Any Refrigeration | 1,136 | 1,456 | 1,818 | 804 | 10,842 | 14,082 | 19,103 | 8,947 | 104.7 | 103.4 | 95.2 | 89.9 |
| Commercial Refrigeration | 758 | 883 | 1,225 | 469 | 5,936 | 7,122 | 9,638 | 4,072 | 127.8 | 124.0 | 127.1 | 115.2 |
| Walk-In Units | 588 | 701 | 1,073 | 404 | 4,452 | 5,201 | 7,469 | 3,132 | 132.0 | 134.9 | 143.6 | 129.0 |
| Cases or Cabinets | 641 | 654 | 1,006 | 402 | 4,504 | 4,978 | 7,664 | 3,277 | 142.3 | 131.4 | 131.2 | 122.6 |
| Residential-Type Units | 819 | 1,026 | 1,102 | 519 | 8,288 | 10,792 | 13,162 | 6,642 | 98.9 | 95.0 | 83.7 | 78.2 |
| Vending Machines | 786 | 1,023 | 1,345 | 567 | 6,559 | 9,400 | 13,534 | 5,841 | 119.8 | 108.9 | 99.4 | 97.0 |
| No Refrigeration | 136 | 234 | 130 | 107 | 2,064 | 2,997 | 4,386 | 2,363 | 65.7 | 78.0 | 29.7 | 45.4 |
| **Office Equipment (more than one may apply)** | | | | | | | | | | | | |
| Computers | 1,198 | 1,526 | 1,794 | 859 | 11,518 | 14,415 | 19,715 | 9,980 | 104.0 | 105.8 | 91.0 | 86.0 |
| With Flat Screen Monitors | 748 | 750 | 1,005 | 463 | 5,995 | 6,346 | 9,135 | 4,940 | 124.8 | 118.2 | 110.0 | 93.7 |
| Dedicated Servers | 909 | 1,028 | 1,242 | 581 | 8,143 | 9,252 | 12,649 | 6,294 | 111.7 | 111.1 | 98.2 | 92.3 |
| Laser Printers | 685 | 834 | 966 | 524 | 7,095 | 8,463 | 11,566 | 5,888 | 96.6 | 98.6 | 83.5 | 89.0 |
| Inkjet Printers | 718 | 914 | 1,153 | 516 | 6,415 | 8,305 | 11,480 | 6,009 | 112.0 | 110.1 | 100.5 | 85.9 |
| FAX Machines | 1,165 | 1,391 | 1,747 | 789 | 11,173 | 13,295 | 18,782 | 9,123 | 104.3 | 104.6 | 93.0 | 86.5 |
| Photocopiers | 1,051 | 1,236 | 1,479 | 699 | 9,893 | 11,859 | 16,312 | 8,193 | 106.2 | 104.2 | 90.7 | 85.4 |
| **Number of Computers** | | | | | | | | | | | | |
| None | 73 | 164 | 155 | 53 | 1,388 | 2,664 | 3,774 | 1,330 | 52.9 | 61.5 | 41.0 | 39.6 |
| 1 to 4 | 183 | 327 | 363 | 143 | 2,081 | 3,743 | 4,419 | 2,151 | 87.9 | 87.3 | 82.2 | 66.3 |
| 5 to 9 | 88 | 193 | 152 | 112 | 1,604 | 1,938 | 2,538 | 1,099 | 55.0 | 99.8 | 59.9 | 102.0 |
| 10 to 19 | 112 | 168 | 145 | 90 | 1,321 | 1,690 | 2,403 | 1,196 | 84.7 | 99.5 | 60.4 | 75.1 |
| 20 to 49 | 146 | 186 | 250 | 126 | 1,504 | 1,932 | 2,425 | 1,554 | 96.9 | 96.0 | 103.0 | 81.1 |
| 50 to 99 | 100 | 133 | 207 | 73 | 1,157 | 1,049 | 2,102 | 1,068 | Q | 126.6 | 98.6 | 67.9 |
| 100 to 249 | 173 | 198 | 222 | 121 | 1,260 | 1,851 | 2,262 | 1,317 | 137.2 | 106.7 | 98.2 | 91.9 |
| 250 or More | 396 | 322 | 455 | 194 | 2,590 | 2,213 | 3,565 | 1,595 | 152.8 | 145.4 | 127.5 | 121.9 |
| **Number of Dedicated Servers** | | | | | | | | | | | | |
| None | 362 | 662 | 706 | 330 | 4,763 | 7,828 | 10,839 | 5,015 | 75.9 | 84.6 | 65.1 | 65.9 |
| 1 to 4 | 518 | 650 | 715 | 351 | 5,247 | 6,567 | 8,208 | 4,093 | 98.7 | 99.0 | 87.1 | 85.7 |
| 5 to 9 | Q | 114 | 140 | 61 | 914 | 966 | 1,313 | 671 | Q | 118.3 | 106.9 | 91.1 |
| 10 to 19 | Q | 124 | 155 | 53 | 578 | 773 | 1,126 | 552 | Q | 160.3 | 138.0 | 96.2 |
| 20 to 49 | Q | Q | 141 | Q | 493 | 334 | 1,265 | 491 | Q | Q | 111.8 | Q |
| 50 or More | Q | 86 | 90 | Q | 912 | Q | 737 | 487 | Q | 141.1 | 122.5 | Q |

## Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |
| **Number of Photocopiers** | | | | | | | | | | | | |
| None | 220 | 454 | 469 | 212 | 3,012 | 5,221 | 7,176 | 3,117 | 73.0 | 86.9 | 65.4 | 68.0 |
| One | 231 | 366 | 340 | 192 | 3,027 | 4,235 | 5,460 | 2,753 | 76.4 | 86.5 | 62.2 | 69.9 |
| 2 to 4 | 276 | 384 | 482 | 192 | 2,944 | 4,026 | 5,518 | 2,594 | 93.7 | 95.5 | 87.3 | 74.2 |
| 5 to 9 | 177 | 162 | 197 | 76 | 1,518 | 1,401 | 1,782 | 814 | 116.4 | 115.8 | 110.6 | 93.2 |
| 10 or More | 367 | 323 | 461 | 239 | 2,404 | 2,196 | 3,553 | 2,032 | 152.7 | 147.1 | 129.7 | 117.4 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | | | | |
| Commercial Food Preparation | 618 | 731 | 967 | 396 | 5,016 | 5,850 | 7,880 | 3,478 | 123.1 | 124.9 | 122.7 | 113.7 |
| Activities with Large Amounts of Hot Water | 506 | 683 | 856 | 421 | 3,922 | 5,225 | 6,903 | 3,432 | 129.0 | 130.7 | 124.0 | 122.6 |
| Separate Computer Area | 763 | 731 | 943 | 458 | 5,925 | 6,482 | 9,397 | 5,070 | 128.8 | 112.8 | 100.3 | 90.3 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | | | | |
| Variable Air-Volume System | 525 | 648 | 845 | 362 | 3,780 | 5,001 | 7,348 | 3,468 | 138.9 | 129.6 | 115.0 | 104.5 |
| Economizer Cycle | 587 | 752 | 813 | 436 | 4,141 | 5,884 | 6,632 | 4,452 | 141.8 | 127.8 | 122.6 | 98.0 |
| HVAC Maintenance | 1,160 | 1,457 | 1,731 | 822 | 11,047 | 13,128 | 17,641 | 9,347 | 105.0 | 111.0 | 98.1 | 87.9 |
| Energy Management and Control System (EMCS) | 419 | 460 | 609 | 295 | 3,002 | 3,799 | 5,802 | 3,027 | 139.5 | 121.0 | 104.9 | 97.4 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | | | | |
| Multipaned Windows | 950 | 1,253 | 1,197 | 529 | 9,308 | 11,761 | 12,305 | 5,536 | 102.0 | 106.5 | 97.3 | 95.6 |
| Tinted Window Glass | 628 | 843 | 1,129 | 498 | 4,958 | 7,319 | 11,950 | 5,660 | 126.7 | 115.1 | 94.4 | 88.0 |
| Reflective Window Glass | 198 | 249 | 340 | 139 | 1,661 | 2,165 | 3,010 | 1,707 | 119.2 | 115.2 | 113.0 | 81.5 |
| External Overhangs or Awnings | 297 | 441 | 669 | 329 | 2,687 | 4,225 | 6,785 | 3,545 | 110.6 | 104.5 | 98.5 | 92.9 |
| Skylights or Atriums | 300 | 380 | 379 | 247 | 2,892 | 3,267 | 3,922 | 2,466 | 103.8 | 116.4 | 96.7 | 100.3 |
| Daylighting Sensors | Q | 112 | 79 | 139 | 428 | 815 | 674 | 951 | Q | 137.1 | 117.8 | 145.9 |
| Specular Reflectors | 674 | 931 | 812 | 412 | 5,834 | 7,709 | 7,871 | 4,703 | 115.6 | 120.7 | 103.1 | 87.5 |
| Electronic Ballasts | 1,002 | 1,403 | 1,580 | 761 | 9,288 | 12,610 | 16,459 | 8,525 | 107.9 | 111.3 | 96.0 | 89.2 |
| Energy Management and Control System (EMCS) For Lighting | Q | 162 | 148 | 108 | 849 | 1,292 | 1,471 | 1,169 | Q | 125.1 | 100.5 | 92.7 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | | | | |
| Heating | 922 | 1,009 | 1,197 | 613 | 9,519 | 10,908 | 14,655 | 7,639 | 96.8 | 92.5 | 81.7 | 80.3 |
| Cooling | 883 | 1,002 | 1,309 | 649 | 8,812 | 10,469 | 16,094 | 7,829 | 100.2 | 95.8 | 81.4 | 82.9 |
| Lighting | 724 | 1,259 | 1,260 | 575 | 8,706 | 12,884 | 17,115 | 8,282 | 83.1 | 97.8 | 73.6 | 69.5 |
| Office Equipment | 355 | 496 | 401 | 213 | 4,269 | 5,412 | 6,426 | 3,291 | 83.0 | 91.7 | 62.5 | 64.8 |

## Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | Total Floorspace of Buildings (million square feet) | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings* .....** | 1,271 | 1,690 | 1,948 | 911 | 12,905 | 17,080 | 23,489 | 11,310 | 98.5 | 98.9 | 82.9 | 80.6 |

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.

# Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) per Million Btu | | | | Sum of Major Fuel Expenditures (dollars) per Square Foot | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Building Floorspace (Square Feet)** | | | | | | | | | | | | |
| 1,001 to 5,000 | 2,298 | 3,235 | 4,752 | 2,526 | 19.47 | 15.74 | 19.77 | 23.48 | 2.24 | 1.71 | 1.88 | 1.89 |
| 5,001 to 10,000 | 1,806 | 1,694 | 3,368 | 2,529 | 17.72 | 14.50 | 18.24 | 22.49 | 1.61 | 1.08 | 1.27 | 2.04 |
| 10,001 to 25,000 | 2,606 | 3,157 | 4,530 | 2,846 | 17.56 | 13.85 | 18.09 | 19.03 | 1.32 | 1.02 | 1.03 | 1.36 |
| 25,001 to 50,000 | 1,768 | 3,033 | 3,422 | 2,170 | 16.61 | 12.27 | 16.67 | 19.02 | 1.37 | 1.18 | 1.08 | 1.32 |
| 50,001 to 100,000 | 3,479 | 2,592 | 3,959 | 1,866 | 17.16 | 12.25 | 15.52 | 20.88 | 1.71 | 1.15 | 1.15 | 1.41 |
| 100,001 to 200,000 | 3,292 | 3,029 | 5,328 | 1,743 | 15.74 | 12.02 | 14.20 | 17.92 | 1.55 | 1.32 | 1.53 | 1.48 |
| 200,001 to 500,000 | 2,877 | 2,798 | 2,781 | 1,892 | 15.20 | 11.47 | 14.55 | 18.84 | 1.62 | 1.27 | 1.45 | 1.47 |
| Over 500,000 | Q | 1,983 | 3,456 | 2,545 | Q | 10.75 | 14.03 | 18.12 | Q | 1.65 | 1.79 | 2.08 |
| **Principal Building Activity** | | | | | | | | | | | | |
| Education | 2,508 | 2,465 | 4,948 | 2,087 | 14.66 | 11.24 | 16.46 | 16.14 | 1.49 | 0.97 | 1.24 | 1.25 |
| Food Sales | Q | 1,192 | 1,814 | Q | Q | 16.99 | 19.86 | Q | Q | 3.72 | 3.73 | Q |
| Food Service | Q | 1,384 | 3,399 | 1,250 | Q | 13.95 | 15.70 | 19.37 | Q | 3.05 | 4.45 | 4.72 |
| Health Care | 1,510 | 1,690 | 2,681 | 1,560 | 13.30 | 10.30 | 12.37 | 15.70 | 2.82 | 2.12 | 2.10 | 2.82 |
| Inpatient | Q | 1,052 | 2,180 | Q | Q | 8.81 | 11.47 | Q | Q | 2.40 | 2.60 | Q |
| Outpatient | Q | 638 | 501 | 658 | Q | 14.27 | 18.76 | 20.17 | Q | 1.78 | 1.14 | 2.33 |
| Lodging | 1,531 | 1,434 | 2,451 | 2,029 | 14.16 | 11.51 | 14.92 | 18.00 | Q | 1.25 | 1.45 | 1.87 |
| Retail (Other Than Mall) | 837 | 1,212 | 2,433 | 1,499 | 20.43 | 13.40 | 19.20 | 24.64 | 1.33 | 1.38 | 1.32 | 1.56 |
| Office | 6,229 | 4,787 | 5,609 | 4,216 | 20.44 | 14.72 | 17.05 | 24.13 | 2.07 | 1.60 | 1.48 | 1.74 |
| Public Assembly | 1,329 | 1,290 | 1,735 | Q | 14.22 | 12.54 | 15.87 | 22.31 | Q | 1.28 | 1.48 | 2.03 |
| Public Order and Safety | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Religious Worship | 425 | 693 | 1,071 | 268 | 13.02 | 11.76 | 18.66 | 18.86 | 0.68 | 0.62 | 0.71 | 0.52 |
| Service | 942 | 1,434 | 1,535 | 867 | 15.97 | 13.09 | Q | 16.33 | 1.27 | 1.11 | 1.13 | 1.31 |
| Warehouse and Storage | 1,056 | 2,724 | 1,928 | 1,187 | 16.66 | 12.08 | 18.24 | 19.36 | 0.69 | 0.90 | 0.49 | 0.76 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Year Constructed** | | | | | | | | | | | | |
| Before 1920 | 1,710 | 1,434 | 605 | Q | 14.93 | 11.63 | 14.74 | Q | 1.22 | 0.92 | 1.17 | Q |
| 1920 to 1945 | 3,246 | 2,880 | 1,301 | 1,242 | 14.69 | 11.01 | 16.57 | 21.07 | 1.30 | 1.37 | 0.97 | 1.35 |
| 1946 to 1959 | 2,943 | 2,031 | 2,126 | 1,440 | 15.54 | 12.34 | 15.42 | 19.57 | 1.41 | 1.00 | 1.18 | 1.28 |
| 1960 to 1969 | 3,505 | 2,448 | 3,222 | 2,203 | 16.63 | 11.96 | 16.04 | 18.29 | 2.02 | 1.10 | 1.27 | 1.38 |
| 1970 to 1979 | 3,425 | 4,127 | 5,077 | 3,500 | 17.91 | 12.82 | 15.88 | 18.41 | 1.99 | 1.27 | 1.36 | 1.68 |
| 1980 to 1989 | 2,923 | 3,069 | 7,152 | 4,202 | 20.02 | 13.90 | 15.93 | 19.26 | 2.13 | 1.57 | 1.50 | 1.87 |
| 1990 to 1999 | 2,216 | 3,988 | 8,567 | 3,989 | 18.83 | 13.96 | 16.34 | 23.45 | 1.62 | 1.45 | 1.37 | 1.99 |
| 2000 to 2003 | 1,376 | 1,544 | 3,544 | 1,158 | Q | 14.43 | 17.96 | 20.60 | 1.97 | 1.25 | 1.39 | 1.12 |
| **Climate Zone: 30-Year Average** | | | | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | | | | |
| More than 7,000 HDD | 3,499 | 6,874 | N | 3,336 | 17.74 | 12.76 | N | 13.14 | 1.45 | 1.22 | N | 1.29 |
| 5,500-7,000 HDD | 8,356 | 13,204 | N | 2,895 | 15.92 | 12.72 | N | 14.66 | 1.55 | 1.34 | N | 1.40 |
| 4,000-5,499 HDD | 9,489 | 1,442 | 6,339 | Q | 17.29 | 12.80 | 15.58 | 18.99 | 1.86 | 0.90 | 1.54 | 1.78 |
| Fewer than 4,000 HDD | N | N | 13,141 | 9,231 | N | N | 14.87 | 28.07 | N | N | 1.27 | 1.71 |
| 2,000 CDD or More and -- | | | | | | | | | | | | |
| Fewer than 4,000 HDD | N | N | 12,115 | 1,419 | N | N | 18.42 | 21.51 | N | N | 1.34 | 2.55 |
| **Number of Floors** | | | | | | | | | | | | |
| One | 5,015 | 7,842 | 13,429 | 7,330 | 18.50 | 13.88 | 18.24 | 20.09 | 1.59 | 1.28 | 1.14 | 1.48 |
| Two | 4,166 | 5,474 | 6,664 | 4,628 | 16.42 | 12.75 | 16.62 | 20.42 | 1.38 | 1.06 | 1.35 | 1.48 |
| Three | 2,390 | 3,012 | 2,457 | 1,285 | 15.31 | 12.75 | 15.02 | 20.20 | 1.15 | 1.17 | 1.27 | 1.43 |
| Four to Nine | 6,000 | 4,237 | 5,941 | 2,789 | 16.30 | 11.15 | 13.66 | 18.23 | 2.00 | 1.59 | 1.92 | 2.10 |
| Ten or More | Q | Q | 3,105 | Q | Q | Q | 14.62 | Q | Q | Q | 1.77 | Q |

# Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) per Million Btu | | | | Sum of Major Fuel Expenditures (dollars) per Square Foot | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | | | | |
| Any Elevators | 11,964 | 9,486 | 13,512 | 7,290 | 16.55 | 11.96 | 14.41 | 19.60 | 1.95 | 1.42 | 1.70 | 1.89 |
| Number of Elevators | | | | | | | | | | | | |
| One | 2,895 | 3,543 | 3,184 | 1,345 | 17.37 | 12.28 | 15.95 | 17.50 | 1.83 | 1.15 | 1.29 | 1.25 |
| Two to Five | 4,886 | 4,082 | 5,587 | 2,663 | 16.18 | 12.22 | 14.21 | 20.77 | 1.64 | 1.51 | 1.81 | 1.96 |
| Six or More | 4,183 | 1,861 | 4,741 | 3,283 | 16.46 | 10.91 | 13.75 | 19.66 | 2.65 | 2.09 | 1.99 | 2.31 |
| Any Escalators | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Number of Workers (main shift)** | | | | | | | | | | | | |
| Fewer than 5 | 2,461 | 4,520 | 4,256 | 2,378 | 16.11 | 13.25 | 20.21 | 21.09 | 1.04 | 0.91 | 0.75 | 0.96 |
| 5 to 9 | 1,646 | 1,954 | 3,162 | 1,503 | 18.56 | 14.94 | 18.70 | 18.82 | 1.52 | 1.34 | 1.22 | 1.47 |
| 10 to 19 | 2,128 | 2,417 | 3,596 | 1,795 | 16.49 | 13.26 | 18.06 | 21.36 | 1.14 | 1.16 | 1.31 | 1.62 |
| 20 to 49 | 3,614 | 3,879 | 5,709 | 3,203 | 17.40 | 12.52 | 15.60 | 19.22 | 1.56 | 1.36 | 1.47 | 1.66 |
| 50 to 99 | 2,655 | 2,903 | 3,486 | 2,121 | 16.07 | 12.57 | 15.96 | 18.76 | 1.66 | 1.26 | 1.31 | 1.55 |
| 100 to 249 | 2,876 | 2,453 | 4,878 | 2,763 | 16.04 | 11.98 | 14.68 | 22.79 | 2.16 | 1.52 | 1.93 | 1.98 |
| 250 or More | 5,965 | 3,394 | 6,508 | 4,355 | 17.11 | 11.71 | 14.37 | 18.65 | 2.56 | 1.89 | 1.91 | 2.19 |
| **Weekly Operating Hours** | | | | | | | | | | | | |
| Fewer than 40 | 528 | 1,098 | 1,287 | 783 | 15.12 | 13.21 | 18.86 | 18.96 | 0.57 | 0.48 | 0.51 | 0.71 |
| 40 to 48 | 2,419 | 3,157 | 4,689 | 2,483 | 15.01 | 13.23 | 18.26 | 21.28 | 1.15 | 1.13 | 1.03 | 1.15 |
| 49 to 60 | 4,030 | 5,704 | 6,022 | 3,705 | 18.23 | 12.75 | 17.33 | 22.67 | 1.30 | 1.24 | 1.08 | 1.51 |
| 61 to 84 | 3,345 | 3,323 | 5,555 | 2,817 | 17.19 | 13.23 | 16.91 | 18.81 | 1.63 | 1.29 | 1.48 | 1.44 |
| 85 to 167 | 2,960 | 3,836 | 5,164 | 2,326 | 18.35 | 13.39 | 16.14 | 19.11 | 2.25 | 1.91 | 2.10 | 1.78 |
| Open Continuously | 8,062 | 4,402 | 8,877 | 6,005 | 16.19 | 11.50 | 14.15 | 18.86 | 2.37 | 1.58 | 1.93 | 2.57 |
| **Ownership and Occupancy** | | | | | | | | | | | | |
| Nongovernment Owned | 17,306 | 15,018 | 23,198 | 14,154 | 17.42 | 13.14 | 16.48 | 21.46 | 1.67 | 1.20 | 1.30 | 1.62 |
| Owner Occupied | 9,772 | 7,513 | 10,288 | 5,979 | 16.83 | 12.78 | 16.42 | 22.55 | 1.66 | 1.22 | 1.31 | 1.64 |
| Nonowner Occupied | 7,441 | 7,338 | 12,806 | 8,128 | 18.26 | 13.57 | 16.54 | 20.74 | 1.77 | 1.32 | 1.37 | 1.69 |
| Unoccupied | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Government Owned | 4,038 | 6,503 | 8,397 | 3,964 | 14.53 | 11.90 | 15.53 | 15.75 | 1.60 | 1.41 | 1.48 | 1.54 |
| Federal | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | 1.96 | Q |
| State | Q | Q | 2,976 | 1,384 | Q | Q | 13.56 | 15.69 | Q | Q | 1.73 | 1.90 |
| Local | 2,483 | 2,927 | 4,399 | 2,039 | 14.31 | 11.65 | 17.24 | 16.93 | 1.46 | 1.00 | 1.29 | 1.32 |
| **Vacancy Status** | | | | | | | | | | | | |
| Completely Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 5,398 | 4,070 | 5,030 | 3,125 | 18.16 | 12.63 | 16.66 | 19.01 | 1.73 | 1.30 | 1.24 | 1.50 |
| Not At All Vacant | 15,731 | 17,136 | 26,443 | 14,893 | 16.36 | 12.79 | 16.14 | 20.11 | 1.70 | 1.32 | 1.41 | 1.68 |
| **Number of Establishments** | | | | | | | | | | | | |
| One | 13,370 | 16,206 | 22,598 | 12,980 | 15.89 | 12.84 | 16.44 | 18.83 | 1.66 | 1.31 | 1.33 | 1.67 |
| 2 to 5 | 4,318 | 3,711 | 5,052 | 2,949 | 17.66 | 12.75 | 15.60 | 22.17 | 1.72 | 1.32 | 1.35 | 1.55 |
| 6 to 10 | 1,019 | 605 | 1,184 | 593 | 17.51 | 10.77 | 15.58 | 23.58 | 1.78 | 1.19 | 2.15 | 1.81 |
| 11 to 20 | Q | Q | 907 | Q | Q | Q | 14.70 | Q | Q | Q | 1.54 | Q |
| More than 20 | Q | Q | 1,740 | Q | Q | Q | 16.51 | Q | Q | Q | 1.72 | Q |
| Currently Unoccupied | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |

# Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | per Million Btu | | | | per Square Foot | | | |
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Predominant Exterior Wall Material** | | | | | | | | | | | | |
| Brick, Stone or Stucco | 11,983 | 12,651 | 16,070 | 7,694 | 15.57 | 12.59 | 15.93 | 19.11 | 1.65 | 1.37 | 1.39 | 1.62 |
| Concrete (Block or Poured) | 3,482 | 3,611 | 5,714 | 3,208 | 18.67 | 12.52 | 16.68 | 20.50 | 1.59 | 1.25 | 1.43 | 1.81 |
| Concrete Panels | Q | 1,877 | 4,661 | 2,967 | Q | 12.55 | 16.16 | 19.37 | Q | 1.53 | 1.69 | 1.50 |
| Siding or Shingles | 1,272 | 1,043 | 1,268 | 1,487 | 16.82 | 14.69 | 17.35 | 26.21 | 1.07 | 0.88 | 1.21 | 2.13 |
| Metal Panels | 2,068 | 1,435 | 2,778 | 1,915 | 19.87 | 15.10 | 16.83 | 19.37 | 1.96 | 0.76 | 0.81 | 1.23 |
| Window Glass | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | | | | |
| Built-Up | 7,382 | 7,284 | 11,161 | 7,318 | 17.85 | 12.44 | 15.79 | 19.37 | 1.81 | 1.38 | 1.50 | 1.66 |
| Shingles (Not Wood) | 3,288 | 3,353 | 4,131 | 2,793 | 15.88 | 12.98 | 17.53 | 22.97 | 1.63 | 1.05 | 1.24 | 1.69 |
| Metal Surfacing | 1,147 | 2,178 | 5,269 | 2,189 | 19.90 | 13.57 | 18.14 | 18.05 | 1.12 | 0.82 | 0.84 | 1.12 |
| Synthetic or Rubber | 7,735 | 6,210 | 7,637 | 3,243 | 16.54 | 12.88 | 14.85 | 17.54 | 1.88 | 1.40 | 1.78 | 1.73 |
| Slate or Tile | Q | 388 | 1,383 | 1,202 | Q | 12.88 | 17.48 | 25.73 | Q | 1.27 | 1.31 | 1.94 |
| Wooden Materials | Q | Q | Q | 291 | Q | Q | Q | Q | Q | Q | Q | 1.19 |
| Concrete | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | 1.53 | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | | | | |
| Any Type of Renovation Since 1980 | 8,758 | 6,522 | 6,154 | 4,223 | 16.31 | 11.53 | 14.80 | 17.03 | 1.72 | 1.20 | 1.38 | 1.49 |
| Addition or Annex | 2,757 | 2,582 | 2,761 | 1,429 | 14.75 | 10.71 | 14.16 | 13.03 | 1.53 | 1.31 | 1.53 | 1.46 |
| Reduction In Floorspace | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 7,113 | 4,939 | 4,245 | 3,324 | 16.97 | 11.60 | 14.92 | 17.72 | 1.80 | 1.27 | 1.37 | 1.52 |
| Wall or Roof Replacement | 4,422 | 2,702 | 2,595 | 1,934 | 17.01 | 11.72 | 15.15 | 16.76 | 1.65 | 1.21 | 1.39 | 1.50 |
| Interior Wall Re-Configuration | 4,296 | 3,448 | 2,812 | 2,575 | 16.20 | 11.71 | 14.00 | 17.09 | 1.73 | 1.33 | 1.45 | 1.71 |
| HVAC Equipment Upgrade | 5,929 | 4,223 | 3,914 | 2,832 | 17.53 | 11.44 | 14.10 | 16.51 | 1.96 | 1.27 | 1.51 | 1.55 |
| Lighting Upgrade | 5,917 | 3,880 | 3,025 | 2,911 | 16.21 | 11.51 | 14.09 | 17.29 | 1.77 | 1.27 | 1.45 | 1.64 |
| Window Replacement | 4,548 | 2,068 | 1,216 | 1,270 | 16.78 | 11.25 | 14.89 | 16.61 | 1.65 | 1.12 | 1.33 | 1.51 |
| Plumbing System Upgrade | 4,289 | 2,481 | 2,007 | 2,188 | 16.46 | 11.54 | 13.53 | 17.60 | 1.71 | 1.31 | 1.47 | 1.60 |
| Insulation Upgrade | 2,398 | 1,424 | 1,257 | 789 | 17.33 | 12.35 | 15.02 | 18.21 | 1.75 | 1.18 | 1.47 | 1.37 |
| Other Renovation | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No Renovations Since 1980 | 6,070 | 6,398 | 6,178 | 4,545 | 15.57 | 12.53 | 17.05 | 20.78 | 1.39 | 1.12 | 1.13 | 1.43 |
| Building Newer than 1980 | 6,516 | 8,601 | 19,263 | 9,350 | 18.93 | 14.02 | 16.46 | 21.03 | 1.89 | 1.45 | 1.42 | 1.77 |
| **Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 21,344 | 21,518 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.67 | 1.29 | 1.39 | 1.64 |
| Natural Gas | 16,336 | 17,202 | 20,764 | 13,159 | 16.38 | 12.47 | 14.94 | 18.13 | 1.78 | 1.31 | 1.56 | 1.68 |
| Fuel Oil | 9,930 | 4,397 | 6,953 | 4,625 | 15.62 | 11.30 | 14.24 | 18.75 | 1.63 | 1.55 | 1.69 | 2.18 |
| District Heat | Q | Q | Q | Q | Q | Q | 13.30 | Q | Q | Q | 2.44 | Q |
| District Chilled Water | Q | Q | 2,629 | Q | Q | Q | 13.04 | Q | Q | Q | 2.29 | Q |
| Propane | 1,606 | 2,729 | 2,488 | 2,601 | 16.45 | 12.91 | 16.75 | 20.49 | 1.19 | 1.25 | 1.05 | 2.22 |
| Other | Q | 599 | 551 | Q | Q | 12.59 | Q | Q | Q | 1.19 | 1.80 | Q |

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## Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) per Million Btu | | | | Sum of Major Fuel Expenditures (dollars) per Square Foot | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 8,456 | 7,487 | 17,900 | 7,894 | 19.05 | 13.68 | 17.67 | 21.39 | 1.92 | 1.20 | 1.37 | 1.61 |
| Natural Gas | 12,966 | 15,164 | 15,939 | 10,889 | 16.66 | 12.36 | 14.74 | 18.29 | 1.79 | 1.25 | 1.49 | 1.59 |
| Fuel Oil | 4,722 | 1,105 | 1,196 | Q | 13.18 | 10.24 | 13.00 | Q | 1.20 | 1.21 | 1.33 | Q |
| District Heat | Q | Q | Q | Q | Q | Q | 13.21 | Q | Q | Q | 2.49 | Q |
| Propane | Q | 519 | 1,220 | Q | Q | 19.13 | 17.40 | Q | Q | 0.64 | 1.02 | Q |
| Other | Q | 215 | Q | Q | Q | Q | Q | Q | Q | 0.79 | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | | | | |
| Electricity | 2,318 | 3,353 | 11,722 | 4,618 | 23.46 | 16.36 | 19.67 | 24.43 | 1.85 | 1.32 | 1.29 | 1.48 |
| Natural Gas | 11,229 | 13,617 | 13,826 | 9,525 | 16.59 | 12.24 | 14.55 | 17.62 | 1.74 | 1.20 | 1.49 | 1.61 |
| Fuel Oil | 3,278 | Q | Q | Q | 13.65 | Q | Q | Q | 1.01 | Q | Q | Q |
| District Heat | Q | Q | Q | Q | Q | Q | 13.27 | Q | Q | Q | 2.50 | Q |
| Propane | Q | 396 | 485 | Q | Q | 21.94 | 21.82 | 37.59 | Q | 0.70 | 0.72 | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 18,271 | 17,938 | 29,097 | 16,172 | 17.01 | 12.93 | 16.47 | 20.41 | 1.76 | 1.30 | 1.41 | 1.70 |
| Natural Gas | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Chilled Water | Q | Q | 2,629 | Q | Q | Q | 13.04 | Q | Q | Q | 2.29 | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 7,228 | 7,602 | 15,995 | 6,082 | 17.88 | 13.47 | 17.60 | 22.72 | 1.41 | 1.17 | 1.35 | 1.52 |
| Natural Gas | 10,768 | 11,529 | 14,522 | 10,791 | 16.31 | 12.24 | 14.44 | 18.05 | 1.92 | 1.31 | 1.75 | 1.76 |
| Fuel Oil | 2,025 | Q | Q | Q | 13.07 | Q | Q | Q | 1.31 | Q | Q | Q |
| District Heat | Q | Q | Q | Q | Q | Q | 13.66 | Q | Q | Q | 2.45 | Q |
| Propane | Q | Q | 500 | Q | Q | 15.90 | 18.42 | Q | Q | 0.68 | 0.93 | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | | | | |
| Electricity | 5,129 | 5,433 | 9,274 | 3,786 | 16.29 | 12.09 | 15.50 | 17.48 | 2.06 | 1.44 | 1.89 | 1.91 |
| Natural Gas | 6,991 | 6,263 | 11,058 | 5,131 | 15.25 | 11.64 | 14.29 | 16.92 | 1.95 | 1.58 | 2.02 | 2.13 |
| Propane | 466 | Q | 584 | Q | 16.83 | Q | 17.45 | Q | 1.18 | Q | 1.30 | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | | | | |
| Buildings with Space Heating | 21,201 | 21,367 | 30,483 | 16,563 | 16.77 | 12.70 | 16.04 | 19.29 | 1.68 | 1.31 | 1.45 | 1.64 |
| Buildings with Cooling | 19,935 | 19,466 | 31,209 | 17,129 | 17.04 | 12.88 | 16.20 | 19.99 | 1.82 | 1.34 | 1.45 | 1.72 |
| Buildings with Water Heating | 20,407 | 19,598 | 29,918 | 17,295 | 16.82 | 12.75 | 16.01 | 19.67 | 1.73 | 1.31 | 1.50 | 1.76 |
| Buildings with Cooking | 9,562 | 8,772 | 14,691 | 7,241 | 15.48 | 12.01 | 15.19 | 18.23 | 1.91 | 1.50 | 1.86 | 2.08 |
| Buildings with Manufacturing | 1,485 | 870 | 624 | Q | 17.65 | 12.06 | 14.86 | 17.30 | 1.47 | 1.09 | 0.97 | 1.42 |
| Buildings with Electricity Generation | 7,871 | 5,766 | 7,028 | 4,756 | 17.23 | 11.84 | 14.19 | 18.75 | 2.43 | 1.74 | 1.75 | 2.12 |
| **Percent of Floorspace Heated** | | | | | | | | | | | | |
| Not Heated | Q | 153 | 1,112 | 1,554 | Q | 21.19 | 23.22 | 29.47 | Q | 0.20 | 0.45 | 1.29 |
| 1 to 50 | 1,008 | 794 | 2,185 | 1,614 | 17.74 | 14.10 | 18.12 | 24.91 | 0.73 | 0.70 | 0.77 | 1.08 |
| 51 to 99 | 2,404 | 2,167 | 4,190 | 3,211 | 16.02 | 12.29 | 16.56 | 19.21 | 1.56 | 1.25 | 1.45 | 1.65 |
| 100 | 17,789 | 18,407 | 24,109 | 11,738 | 16.83 | 12.70 | 15.79 | 18.74 | 1.84 | 1.37 | 1.58 | 1.76 |

# Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) per Million Btu | | | | Sum of Major Fuel Expenditures (dollars) per Square Foot | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Percent of Floorspace Cooled** | | | | | | | | | | | | |
| Not Cooled | 1,409 | 2,055 | 386 | 989 | 13.90 | 11.50 | 17.92 | 18.21 | 0.72 | 0.79 | 0.20 | 0.73 |
| 1 to 50 | 4,827 | 4,108 | 3,503 | 3,065 | 14.88 | 12.22 | 16.86 | 19.45 | 1.13 | 0.86 | 0.71 | 1.15 |
| 51 to 99 | 6,603 | 5,439 | 6,151 | 4,253 | 17.52 | 12.50 | 16.28 | 19.08 | 2.13 | 1.45 | 1.58 | 1.74 |
| 100 | 8,505 | 9,919 | 21,556 | 9,811 | 18.16 | 13.41 | 16.07 | 20.59 | 2.37 | 1.66 | 1.69 | 2.02 |
| **Percent Lit When Open** | | | | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 2,378 | 2,236 | 2,411 | 1,574 | 15.10 | 12.54 | 18.16 | 21.94 | 0.86 | 0.81 | 0.76 | 1.04 |
| 51 to 99 | 7,274 | 6,631 | 8,536 | 5,813 | 17.09 | 12.90 | 16.60 | 20.61 | 2.02 | 1.25 | 1.39 | 1.79 |
| 100 | 11,536 | 12,338 | 20,429 | 10,654 | 17.01 | 12.72 | 15.86 | 19.28 | 1.91 | 1.59 | 1.59 | 1.75 |
| Building Never Open/ Electricity Not Used | Q | 301 | Q | Q | Q | Q | Q | Q | Q | 0.25 | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | | | | |
| Zero | 3,294 | 5,545 | 5,920 | 3,549 | 17.39 | 12.78 | 17.77 | 20.20 | 1.17 | 1.07 | 0.94 | 1.14 |
| 1 to 50 | 9,231 | 10,434 | 15,141 | 8,206 | 17.03 | 13.20 | 16.93 | 20.55 | 1.47 | 1.26 | 1.37 | 1.53 |
| 51 to 100 | Q | 1,138 | 1,657 | Q | Q | 13.87 | 17.70 | Q | Q | 2.28 | 1.64 | Q |
| Building Never Closed/ Electricity Not Used | 8,062 | 4,405 | 8,878 | 6,005 | 16.19 | 11.50 | 14.15 | 18.86 | 2.32 | 1.41 | 1.72 | 2.30 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | | | | |
| Heat Pumps | 3,282 | 1,298 | 6,729 | 2,941 | 18.52 | 13.47 | 17.04 | 21.57 | 2.71 | 1.23 | 1.36 | 1.84 |
| Packaged Heat Pumps | 1,938 | 907 | 4,454 | 2,030 | Q | 13.26 | 17.36 | 20.71 | 2.60 | 1.23 | 1.52 | 1.97 |
| Split-System Heat Pumps | Q | Q | 2,201 | 738 | Q | Q | 17.37 | 24.40 | Q | Q | 1.18 | 2.01 |
| Individual Room Heat Pumps | Q | Q | 1,596 | 667 | Q | Q | 15.87 | 19.81 | Q | Q | 1.28 | 1.24 |
| Furnaces | 4,758 | 8,025 | 6,516 | 4,190 | 17.28 | 13.46 | 16.42 | 18.64 | 1.32 | 1.11 | 1.14 | 1.36 |
| Individual Space Heaters | 4,626 | 4,368 | 4,549 | 2,421 | 17.62 | 12.87 | 16.49 | 16.60 | 1.66 | 1.05 | 1.26 | 1.22 |
| District Heat | Q | Q | Q | Q | Q | Q | 13.21 | Q | Q | Q | 2.49 | Q |
| Boilers | 9,785 | 7,454 | 7,486 | 6,327 | 14.81 | 11.37 | 13.38 | 17.19 | 1.57 | 1.21 | 1.70 | 1.73 |
| Packaged Heating Units | 6,770 | 5,282 | 12,272 | 5,578 | 18.57 | 13.17 | 17.00 | 23.17 | 2.32 | 1.44 | 1.51 | 1.68 |
| Other | Q | 1,048 | 1,508 | 593 | Q | 14.09 | 17.78 | 18.23 | Q | 1.28 | 1.09 | 1.23 |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | | | | |
| Residential-Type Central Air Conditioners | 3,882 | 4,378 | 4,419 | 1,762 | 16.38 | 12.78 | 17.36 | 19.65 | 1.62 | 1.21 | 1.15 | 1.49 |
| Heat Pumps | 3,376 | 1,313 | 6,856 | 3,194 | 18.49 | 13.21 | 16.90 | 21.37 | 2.66 | 1.23 | 1.39 | 1.79 |
| Packaged Heat Pumps | 2,019 | 944 | 4,417 | 1,976 | Q | 13.07 | 17.33 | 20.41 | 2.56 | 1.24 | 1.55 | 1.92 |
| Split-System Heat Pumps | Q | Q | 2,271 | 771 | Q | Q | 17.24 | 23.98 | Q | Q | 1.22 | 1.91 |
| Individual Room Heat Pumps | Q | Q | 1,690 | 982 | Q | Q | 15.67 | 20.08 | Q | Q | 1.31 | 1.34 |
| Individual Air Conditioners | 5,230 | 3,744 | 4,391 | 2,811 | 14.87 | 11.69 | 16.16 | 20.67 | 1.42 | 1.07 | 1.21 | 1.61 |
| District Chilled Water | Q | Q | 2,629 | Q | Q | Q | 13.04 | Q | Q | Q | 2.29 | Q |
| Central Chillers | 4,731 | 4,571 | 8,574 | 4,572 | 16.10 | 11.32 | 14.28 | 19.61 | 2.55 | 1.61 | 1.77 | 2.19 |
| Packaged Air Conditioning Units | 11,093 | 11,024 | 14,884 | 9,330 | 16.87 | 12.95 | 16.59 | 20.42 | 1.85 | 1.36 | 1.43 | 1.70 |
| Swamp Coolers | Q | Q | Q | 2,049 | Q | Q | Q | 15.26 | Q | Q | Q | 1.53 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | | | | |
| Heating | 5,572 | 5,905 | 5,972 | 4,093 | 18.33 | 12.80 | 16.15 | 17.64 | 1.40 | 1.17 | 1.24 | 1.58 |
| Cooling | 9,227 | 7,399 | 8,366 | 5,396 | 17.26 | 12.39 | 16.03 | 18.28 | 1.69 | 1.29 | 1.30 | 1.60 |

# Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | per Million Btu | | | | per Square Foot | | | |
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Water Heating Equipment** | | | | | | | | | | | | |
| Centralized System | 13,758 | 13,278 | 17,757 | 9,976 | 16.61 | 13.28 | 16.23 | 19.56 | 1.77 | 1.37 | 1.54 | 1.77 |
| Distributed System | 3,187 | 2,962 | 5,419 | 2,827 | 17.78 | 13.01 | 17.38 | 24.21 | 1.37 | 1.11 | 1.19 | 1.43 |
| Combination of Centralized and Distributed System | 3,463 | 3,358 | 6,742 | 4,493 | 16.83 | 10.84 | 14.57 | 17.80 | 2.04 | 1.33 | 1.77 | 2.02 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | | | | |
| Incandescent | 14,219 | 14,319 | 20,589 | 11,232 | 16.53 | 12.65 | 15.60 | 18.59 | 1.76 | 1.30 | 1.58 | 1.75 |
| Standard Fluorescent | 20,666 | 20,834 | 30,464 | 17,662 | 16.80 | 12.73 | 16.15 | 19.81 | 1.70 | 1.33 | 1.44 | 1.67 |
| Compact Fluorescent | 12,479 | 10,498 | 15,934 | 10,660 | 16.76 | 12.54 | 14.88 | 19.17 | 2.05 | 1.54 | 1.79 | 1.85 |
| High Intensity Discharge | 8,290 | 8,871 | 9,455 | 5,384 | 16.86 | 11.86 | 15.25 | 19.10 | 1.89 | 1.34 | 1.52 | 1.58 |
| Halogen | 7,455 | 6,817 | 10,142 | 5,804 | 17.33 | 11.90 | 15.03 | 19.13 | 2.08 | 1.46 | 1.64 | 1.78 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | | | | |
| Any Refrigeration | 18,988 | 18,548 | 29,141 | 15,880 | 16.72 | 12.74 | 16.03 | 19.75 | 1.75 | 1.32 | 1.53 | 1.77 |
| Commercial Refrigeration | 12,287 | 10,930 | 18,876 | 8,843 | 16.20 | 12.38 | 15.41 | 18.86 | 2.07 | 1.53 | 1.96 | 2.17 |
| Walk-In Units | 9,630 | 8,580 | 16,164 | 7,438 | 16.38 | 12.23 | 15.07 | 18.41 | 2.16 | 1.65 | 2.16 | 2.37 |
| Cases or Cabinets | 10,231 | 8,075 | 15,591 | 7,567 | 15.97 | 12.34 | 15.50 | 18.83 | 2.27 | 1.62 | 2.03 | 2.31 |
| Residential-Type Units | 13,108 | 13,081 | 17,727 | 10,192 | 16.00 | 12.76 | 16.08 | 19.63 | 1.58 | 1.21 | 1.35 | 1.53 |
| Vending Machines | 12,657 | 12,442 | 20,697 | 10,495 | 16.11 | 12.16 | 15.38 | 18.52 | 1.93 | 1.32 | 1.53 | 1.80 |
| No Refrigeration | 2,355 | 2,973 | 2,454 | 2,238 | 17.38 | 12.71 | 18.81 | 20.88 | 1.14 | 0.99 | 0.56 | 0.95 |
| **Office Equipment (more than one may apply)** | | | | | | | | | | | | |
| Computers | 20,062 | 19,381 | 28,855 | 17,109 | 16.75 | 12.70 | 16.09 | 19.93 | 1.74 | 1.34 | 1.46 | 1.71 |
| With Flat Screen Monitors | 12,641 | 9,288 | 15,413 | 9,362 | 16.90 | 12.39 | 15.33 | 20.23 | 2.11 | 1.46 | 1.69 | 1.90 |
| Dedicated Servers | 15,313 | 13,036 | 19,117 | 11,911 | 16.84 | 12.69 | 15.39 | 20.51 | 1.88 | 1.41 | 1.51 | 1.89 |
| Laser Printers | 11,298 | 10,344 | 15,714 | 10,523 | 16.49 | 12.40 | 16.27 | 20.09 | 1.59 | 1.22 | 1.36 | 1.79 |
| Inkjet Printers | 12,502 | 11,824 | 17,974 | 10,220 | 17.40 | 12.93 | 15.58 | 19.79 | 1.95 | 1.42 | 1.57 | 1.70 |
| FAX Machines | 19,559 | 17,648 | 27,796 | 15,899 | 16.79 | 12.69 | 15.91 | 20.16 | 1.75 | 1.33 | 1.48 | 1.74 |
| Photocopiers | 17,464 | 15,408 | 23,166 | 14,041 | 16.61 | 12.47 | 15.66 | 20.08 | 1.77 | 1.30 | 1.42 | 1.71 |
| **Number of Computers** | | | | | | | | | | | | |
| None | 1,282 | 2,140 | 2,740 | 1,009 | 17.45 | 13.06 | 17.72 | 19.18 | 0.92 | 0.80 | 0.73 | 0.76 |
| 1 to 4 | 3,089 | 4,589 | 6,663 | 2,916 | 16.88 | 14.05 | 18.35 | 20.45 | 1.48 | 1.23 | 1.51 | 1.36 |
| 5 to 9 | 1,604 | 2,339 | 2,749 | 1,957 | 18.19 | 12.10 | 18.08 | 17.45 | 1.00 | 1.21 | 1.08 | 1.78 |
| 10 to 19 | 1,909 | 2,222 | 2,518 | 1,939 | 17.06 | 13.22 | 17.35 | 21.58 | 1.45 | 1.32 | 1.05 | 1.62 |
| 20 to 49 | 2,555 | 2,409 | 3,784 | 3,030 | 17.53 | 12.99 | 15.15 | 24.06 | 1.70 | 1.25 | 1.56 | 1.95 |
| 50 to 99 | 1,548 | 1,625 | 3,155 | 1,561 | 15.45 | 12.23 | 15.23 | 21.52 | Q | 1.55 | 1.50 | 1.46 |
| 100 to 249 | 2,771 | 2,401 | 3,466 | 2,153 | 16.02 | 12.15 | 15.60 | 17.78 | 2.20 | 1.30 | 1.53 | 1.63 |
| 250 or More | 6,586 | 3,797 | 6,521 | 3,552 | 16.65 | 11.80 | 14.34 | 18.27 | 2.54 | 1.72 | 1.83 | 2.23 |
| **Number of Dedicated Servers** | | | | | | | | | | | | |
| None | 6,031 | 8,485 | 12,479 | 6,207 | 16.68 | 12.81 | 17.68 | 18.79 | 1.27 | 1.08 | 1.15 | 1.24 |
| 1 to 4 | 8,340 | 8,382 | 11,294 | 6,975 | 16.11 | 12.89 | 15.80 | 19.89 | 1.59 | 1.28 | 1.38 | 1.70 |
| 5 to 9 | Q | 1,468 | 2,203 | 1,525 | Q | 12.84 | 15.70 | 24.94 | Q | 1.52 | 1.68 | 2.27 |
| 10 to 19 | Q | 1,338 | 2,216 | 1,110 | Q | 10.80 | 14.27 | 20.93 | Q | 1.73 | 1.97 | 2.01 |
| 20 to 49 | Q | Q | 2,138 | Q | Q | Q | 15.11 | Q | Q | Q | 1.69 | Q |
| 50 or More | Q | 1,155 | 1,266 | Q | Q | 13.40 | 14.01 | Q | Q | 1.89 | 1.72 | Q |

# Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | per Million Btu | | | | per Square Foot | | | |
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings*** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |
| **Number of Photocopiers** | | | | | | | | | | | | |
| None | 3,880 | 6,113 | 8,429 | 4,077 | 17.64 | 13.47 | 17.97 | 19.24 | 1.29 | 1.17 | 1.17 | 1.31 |
| One | 3,833 | 4,733 | 6,054 | 3,816 | 16.57 | 12.92 | 17.81 | 19.83 | 1.27 | 1.12 | 1.11 | 1.39 |
| 2 to 4 | 4,517 | 4,954 | 7,500 | 4,010 | 16.37 | 12.89 | 15.57 | 20.84 | 1.53 | 1.23 | 1.36 | 1.55 |
| 5 to 9 | 2,780 | 1,874 | 3,016 | 1,771 | 15.73 | 11.55 | 15.31 | 23.34 | 1.83 | 1.34 | 1.69 | 2.17 |
| 10 or More | 6,334 | 3,848 | 6,596 | 4,444 | 17.26 | 11.91 | 14.32 | 18.63 | 2.63 | 1.75 | 1.86 | 2.19 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | | | | |
| Commercial Food Preparation | 9,562 | 8,772 | 14,690 | 7,229 | 15.48 | 12.01 | 15.19 | 18.28 | 1.91 | 1.50 | 1.86 | 2.08 |
| Activities with Large Amounts of Hot Water | 7,641 | 7,812 | 12,288 | 7,163 | 15.10 | 11.44 | 14.36 | 17.02 | 1.95 | 1.50 | 1.78 | 2.09 |
| Separate Computer Area | 12,390 | 8,956 | 14,183 | 9,023 | 16.24 | 12.24 | 15.04 | 19.71 | 2.09 | 1.38 | 1.51 | 1.78 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | | | | |
| Variable Air-Volume System | 8,946 | 7,873 | 12,510 | 6,925 | 17.05 | 12.15 | 14.81 | 19.11 | 2.37 | 1.57 | 1.70 | 2.00 |
| Economizer Cycle | 10,399 | 9,370 | 11,888 | 7,936 | 17.71 | 12.46 | 14.62 | 18.19 | 2.51 | 1.59 | 1.79 | 1.78 |
| HVAC Maintenance | 19,443 | 18,283 | 27,254 | 16,349 | 16.77 | 12.55 | 15.74 | 19.89 | 1.76 | 1.39 | 1.54 | 1.75 |
| Energy Management and Control System (EMCS) | 7,348 | 5,459 | 9,285 | 5,554 | 17.54 | 11.87 | 15.25 | 18.83 | 2.45 | 1.44 | 1.60 | 1.84 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | | | | |
| Multipaned Windows | 15,717 | 16,103 | 18,428 | 9,108 | 16.55 | 12.85 | 15.39 | 17.21 | 1.69 | 1.37 | 1.50 | 1.65 |
| Tinted Window Glass | 10,569 | 10,767 | 17,975 | 10,257 | 16.82 | 12.78 | 15.93 | 20.58 | 2.13 | 1.47 | 1.50 | 1.81 |
| Reflective Window Glass | 3,661 | 3,059 | 5,149 | 2,545 | 18.50 | 12.26 | 15.14 | 18.28 | 2.20 | 1.41 | 1.71 | 1.49 |
| External Overhangs or Awnings | 5,115 | 5,826 | 10,769 | 6,539 | 17.21 | 13.20 | 16.11 | 19.85 | 1.90 | 1.38 | 1.59 | 1.84 |
| Skylights or Atriums | 4,694 | 4,490 | 5,557 | 4,543 | 15.64 | 11.81 | 14.65 | 18.37 | 1.62 | 1.37 | 1.42 | 1.84 |
| Daylighting Sensors | Q | 1,336 | 1,173 | 2,945 | Q | 11.95 | 14.78 | 21.21 | Q | 1.64 | 1.74 | 3.10 |
| Specular Reflectors | 11,394 | 11,334 | 12,462 | 8,276 | 16.89 | 12.18 | 15.35 | 20.10 | 1.95 | 1.47 | 1.58 | 1.76 |
| Electronic Ballasts | 17,031 | 17,658 | 24,971 | 15,213 | 16.99 | 12.59 | 15.81 | 20.00 | 1.83 | 1.40 | 1.52 | 1.78 |
| Energy Management and Control System (EMCS) For Lighting | Q | 1,975 | 2,339 | 2,284 | Q | 12.21 | 15.81 | 21.09 | Q | 1.53 | 1.59 | 1.95 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | | | | |
| Heating | 15,363 | 12,897 | 19,642 | 12,391 | 16.67 | 12.79 | 16.41 | 20.20 | 1.61 | 1.18 | 1.34 | 1.62 |
| Cooling | 15,068 | 12,931 | 21,644 | 13,228 | 17.06 | 12.90 | 16.53 | 20.39 | 1.71 | 1.24 | 1.34 | 1.69 |
| Lighting | 12,402 | 16,515 | 21,641 | 11,755 | 17.14 | 13.11 | 17.18 | 20.43 | 1.42 | 1.28 | 1.26 | 1.42 |
| Office Equipment | 5,758 | 6,293 | 7,457 | 4,407 | 16.24 | 12.68 | 18.58 | 20.66 | 1.35 | 1.16 | 1.16 | 1.34 |

## Table C6. Expenditures by Census Region for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Expenditures (million dollars) | | | | Sum of Major Fuel Expenditures (dollars) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | per Million Btu | | | | per Square Foot | | | |
| | North-east | Mid-west | South | West | North-east | Mid-west | South | West | North-east | Mid-west | South | West |
| **All Buildings* .....** | 21,344 | 21,521 | 31,595 | 18,118 | 16.79 | 12.74 | 16.22 | 19.88 | 1.65 | 1.26 | 1.35 | 1.60 |

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.

# Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings*** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Building Floorspace (Square Feet)** | | | | | | | | | |
| 1,001 to 5,000 | 33 | 85 | 146 | 360 | 666 | 974 | 91.2 | 128.1 | 149.7 |
| 5,001 to 10,000 | Q | 64 | 73 | 359 | 764 | 843 | Q | 83.7 | 86.8 |
| 10,001 to 25,000 | Q | 115 | 163 | 553 | 1,419 | 1,934 | Q | 81.2 | 84.3 |
| 25,001 to 50,000 | Q | 74 | 140 | 347 | 944 | 1,618 | Q | 78.7 | 86.8 |
| 50,001 to 100,000 | Q | 134 | 148 | 516 | 1,524 | 1,618 | Q | 87.8 | 91.5 |
| 100,001 to 200,000 | Q | 150 | 203 | 414 | 1,703 | 1,682 | Q | 87.9 | 120.8 |
| 200,001 to 500,000 | Q | 177 | 214 | Q | 1,673 | 1,801 | Q | 105.8 | 118.8 |
| Over 500,000 | Q | Q | Q | Q | 1,248 | 1,126 | Q | Q | Q |
| **Principal Building Activity** | | | | | | | | | |
| Education | Q | 143 | 175 | Q | 1,384 | 1,990 | Q | 103.1 | 87.7 |
| Food Sales | Q | Q | Q | Q | Q | 218 | Q | Q | Q |
| Food Service | Q | Q | 68 | Q | 127 | 248 | Q | Q | 276.6 |
| Health Care | Q | 102 | 122 | Q | 464 | 551 | Q | 219.0 | 220.7 |
| Inpatient | Q | Q | Q | Q | 310 | 316 | Q | Q | Q |
| Outpatient | Q | Q | Q | Q | Q | 235 | Q | Q | Q |
| Lodging | Q | Q | 70 | 374 | 797 | 548 | Q | Q | 126.7 |
| Retail (Other Than Mall) | Q | 30 | 59 | Q | 419 | 544 | Q | 72.3 | 108.4 |
| Office | 66 | 239 | 263 | 578 | 2,434 | 2,190 | 114.6 | 98.0 | 120.1 |
| Public Assembly | Q | Q | 80 | Q | 769 | 635 | Q | Q | 126.8 |
| Public Order and Safety | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Religious Worship | Q | 28 | 41 | Q | 474 | 720 | Q | 58.1 | 56.4 |
| Service | Q | 45 | 78 | Q | 620 | 775 | Q | 72.0 | 100.8 |
| Warehouse and Storage | Q | 55 | 175 | Q | 1,112 | 2,023 | Q | 49.2 | 86.4 |
| Other | Q | Q | Q | Q | 501 | 248 | Q | Q | Q |
| Vacant | Q | Q | Q | Q | Q | 791 | Q | Q | Q |
| **Year Constructed** | | | | | | | | | |
| Before 1920 | 38 | 76 | 84 | 444 | 962 | 999 | 86.7 | 79.0 | 84.5 |
| 1920 to 1945 | Q | 180 | 216 | 611 | 1,893 | 1,603 | Q | 95.0 | 135.0 |
| 1946 to 1959 | Q | 168 | 125 | Q | 1,745 | 1,454 | Q | 96.0 | 86.2 |
| 1960 to 1969 | Q | 150 | 134 | Q | 1,393 | 1,380 | Q | 107.4 | 97.0 |
| 1970 to 1979 | Q | 145 | 235 | 450 | 1,273 | 2,198 | Q | 114.2 | 107.1 |
| 1980 to 1989 | Q | 118 | 179 | 265 | 1,109 | 1,486 | Q | 106.4 | 120.8 |
| 1990 to 1999 | Q | 87 | 202 | Q | 1,130 | 1,655 | Q | 77.1 | 122.1 |
| 2000 to 2003 | Q | Q | 76 | Q | 435 | 820 | Q | Q | 93.3 |
| **Climate Zone: 30-Year Average** | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | |
| More than 7,000 HDD | 61 | Q | 313 | Q | 1,445 | 3,050 | 62.8 | 94.2 | 102.8 |
| 5,500-7,000 HDD | 232 | 293 | 940 | 1,993 | 3,404 | 8,545 | 116.6 | 85.9 | 110.0 |
| 4,000-5,499 HDD | N | 549 | N | N | 5,092 | N | N | 107.8 | N |
| Fewer than 4,000 HDD | N | N | N | N | N | N | N | N | N |
| 2,000 CDD or More and -- | | | | | | | | | |
| Fewer than 4,000 HDD | N | N | N | N | N | N | N | N | N |
| **Number of Floors** | | | | | | | | | |
| One | 55 | 216 | 416 | 545 | 2,606 | 3,877 | 100.4 | 83.0 | 107.3 |
| Two | 49 | 205 | 283 | 742 | 2,288 | 3,251 | 65.6 | 89.7 | 87.0 |
| Three | Q | 113 | 172 | 755 | 1,327 | 1,881 | Q | 85.2 | 91.4 |
| Four to Nine | 129 | 239 | 312 | 793 | 2,210 | 2,081 | 163.1 | 108.0 | 149.7 |
| Ten or More | Q | Q | 71 | Q | 1,510 | 506 | Q | Q | 141.2 |

## Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings*** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | |
| Any Elevators | 164 | 559 | 624 | 1,375 | 4,762 | 5,050 | 119.3 | 117.3 | 123.5 |
| Number of Elevators | | | | | | | | | |
| One | Q | 111 | 210 | 500 | 1,086 | 2,224 | Q | 102.2 | 94.3 |
| Two to Five | Q | 219 | 270 | 723 | 2,248 | 2,060 | Q | 97.3 | 131.3 |
| Six or More | Q | 229 | 144 | Q | 1,428 | 766 | Q | 160.4 | 187.3 |
| Any Escalators | Q | Q | Q | Q | 494 | Q | Q | Q | Q |
| **Number of Workers (main shift)** | | | | | | | | | |
| Fewer than 5 | 58 | 95 | 264 | 776 | 1,599 | 3,195 | 74.3 | 59.5 | 82.5 |
| 5 to 9 | Q | 64 | 85 | 401 | 684 | 866 | Q | 94.3 | 98.3 |
| 10 to 19 | Q | 102 | 122 | 409 | 1,463 | 1,214 | Q | 69.5 | 100.3 |
| 20 to 49 | Q | 168 | 210 | 350 | 1,964 | 1,980 | Q | 85.3 | 106.2 |
| 50 to 99 | Q | 126 | 158 | Q | 1,110 | 1,570 | Q | 113.3 | 100.7 |
| 100 to 249 | Q | Q | 163 | Q | 1,034 | 1,212 | Q | Q | 134.1 |
| 250 or More | Q | 306 | 252 | Q | 2,087 | 1,558 | Q | 146.7 | 161.8 |
| **Weekly Operating Hours** | | | | | | | | | |
| Fewer than 40 | Q | 28 | 65 | Q | 725 | 1,600 | Q | 38.3 | 40.4 |
| 40 to 48 | Q | 123 | 184 | 440 | 1,672 | 1,746 | 86.5 | 73.7 | 105.2 |
| 49 to 60 | 45 | 176 | 348 | 837 | 2,261 | 3,340 | 53.7 | 77.9 | 104.1 |
| 61 to 84 | Q | 140 | 179 | 494 | 1,554 | 1,737 | Q | 90.4 | 103.2 |
| 85 to 167 | Q | 135 | 218 | Q | 1,078 | 1,450 | Q | 125.6 | 150.0 |
| Open Continuously | Q | 375 | 261 | 756 | 2,651 | 1,721 | 163.2 | 141.3 | 151.4 |
| **Ownership and Occupancy** | | | | | | | | | |
| Nongovernment Owned | 215 | 778 | 799 | 2,283 | 8,106 | 8,015 | 94.2 | 96.0 | 99.7 |
| Owner Occupied | 151 | 429 | 401 | 1,587 | 4,317 | 3,755 | 95.2 | 99.5 | 106.7 |
| Nonowner Occupied | 64 | 344 | 385 | 669 | 3,535 | 3,597 | 95.4 | 97.2 | 107.0 |
| Unoccupied | Q | Q | Q | Q | Q | 663 | Q | Q | Q |
| Government Owned | 78 | 199 | 454 | 682 | 1,835 | 3,580 | 115.1 | 108.7 | 126.9 |
| Federal | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| State | Q | Q | Q | Q | 386 | 536 | Q | Q | Q |
| Local | Q | 145 | 202 | 346 | 1,360 | 2,199 | Q | 106.7 | 91.7 |
| **Vacancy Status** | | | | | | | | | |
| Completely Vacant | Q | Q | Q | Q | Q | 756 | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 94 | 204 | 261 | 1,031 | 2,086 | 2,255 | 90.7 | 97.6 | 115.6 |
| Not At All Vacant | 199 | 763 | 973 | 1,795 | 7,475 | 8,549 | 110.6 | 102.1 | 113.9 |
| **Number of Establishments** | | | | | | | | | |
| One | 198 | 643 | 952 | 1,784 | 6,277 | 8,315 | 111.2 | 102.4 | 114.5 |
| 2 to 5 | 51 | 193 | 202 | 615 | 1,901 | 1,833 | 83.1 | 101.7 | 110.5 |
| 6 to 10 | Q | Q | Q | Q | 411 | 264 | Q | Q | Q |
| 11 to 20 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| More than 20 | Q | Q | Q | Q | 641 | Q | Q | Q | Q |
| Currently Unoccupied | Q | Q | Q | Q | Q | 756 | Q | Q | Q |

# Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings*** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Predominant Exterior Wall Material** | | | | | | | | | |
| Brick, Stone or Stucco | 166 | 604 | 812 | 1,541 | 5,707 | 7,166 | 107.7 | 105.8 | 113.4 |
| Concrete (Block or Poured) | Q | 164 | 180 | 284 | 1,900 | 1,885 | Q | 86.1 | 95.5 |
| Concrete Panels | Q | Q | 104 | Q | 550 | 855 | Q | Q | 121.4 |
| Siding or Shingles | 52 | 24 | 36 | 779 | 415 | 473 | 66.5 | 57.6 | 75.5 |
| Metal Panels | Q | Q | 45 | Q | 862 | 651 | Q | Q | 69.8 |
| Window Glass | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | |
| Built-Up | Q | 373 | 448 | 704 | 3,363 | 3,913 | Q | 110.9 | 114.5 |
| Shingles (Not Wood) | 66 | 141 | 186 | 683 | 1,340 | 2,070 | 96.3 | 105.5 | 89.8 |
| Metal Surfacing | Q | 49 | 85 | Q | 780 | 1,046 | Q | 62.7 | 81.3 |
| Synthetic or Rubber | 151 | 317 | 367 | 1,018 | 3,097 | 3,453 | 148.5 | 102.2 | 106.3 |
| Slate or Tile | Q | Q | Q | Q | 398 | 236 | Q | Q | Q |
| Wooden Materials | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Concrete | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | |
| Any Type of Renovation Since 1980 | 138 | 399 | 396 | 1,445 | 3,659 | 3,492 | 95.6 | 109.0 | 113.4 |
| Addition or Annex | Q | 162 | 156 | Q | 1,395 | 1,243 | Q | 116.3 | 125.7 |
| Reduction In Floorspace | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 95 | 324 | 302 | 943 | 3,010 | 2,354 | 100.8 | 107.7 | 128.4 |
| Wall or Roof Replacement | 71 | 189 | 158 | 720 | 1,955 | 1,367 | 98.1 | 96.8 | 115.2 |
| Interior Wall Re-Configuration | 73 | 192 | 220 | 639 | 1,850 | 1,709 | 114.9 | 103.6 | 128.7 |
| HVAC Equipment Upgrade | 75 | 263 | 257 | 739 | 2,287 | 2,136 | 101.7 | 115.0 | 120.6 |
| Lighting Upgrade | 92 | 273 | 240 | 853 | 2,497 | 1,985 | 107.9 | 109.4 | 120.7 |
| Window Replacement | 73 | 198 | 144 | 688 | 2,061 | 1,339 | 105.7 | 96.2 | 107.4 |
| Plumbing System Upgrade | 78 | 182 | 154 | 633 | 1,878 | 1,177 | 123.8 | 97.0 | 131.2 |
| Insulation Upgrade | Q | 100 | 71 | 356 | 1,014 | 700 | Q | 99.0 | 101.4 |
| Other Renovation | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No Renovations Since 1980 | 70 | 320 | 399 | 752 | 3,608 | 4,142 | 93.3 | 88.6 | 96.4 |
| Building Newer than 1980 | Q | 259 | 458 | 767 | 2,675 | 3,961 | 110.9 | 96.9 | 115.6 |
| **Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 294 | 978 | 1,253 | 2,942 | 9,867 | 11,373 | 99.8 | 99.1 | 110.2 |
| Natural Gas | 187 | 810 | 1,029 | 1,465 | 7,716 | 9,570 | 127.8 | 105.0 | 107.5 |
| Fuel Oil | 147 | 489 | 277 | 1,577 | 4,502 | 1,871 | 92.9 | 108.7 | 148.1 |
| District Heat | Q | Q | Q | Q | 1,082 | 1,420 | Q | Q | Q |
| District Chilled Water | Q | Q | Q | Q | 583 | 569 | Q | Q | Q |
| Propane | 53 | Q | 164 | Q | 505 | Q | 62.0 | Q | 136.7 |
| Other | Q | Q | Q | Q | Q | 283 | Q | Q | Q |

## Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings*** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | Q | 319 | 362 | 1,132 | 3,273 | 3,895 | 110.7 | 97.4 | 92.9 |
| Natural Gas | 153 | 625 | 899 | 1,198 | 6,041 | 8,758 | 127.7 | 103.5 | 102.7 |
| Fuel Oil | 104 | 254 | Q | 1,219 | 2,708 | 456 | 85.5 | Q | Q |
| District Heat | Q | Q | Q | Q | 1,015 | 1,420 | Q | Q | Q |
| Propane | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | |
| Electricity | Q | 87 | 135 | Q | 1,127 | 1,487 | Q | 76.8 | 91.1 |
| Natural Gas | 118 | 559 | 824 | 1,061 | 5,377 | 8,230 | 110.7 | 104.0 | 100.1 |
| Fuel Oil | 99 | 141 | Q | 1,161 | 2,089 | Q | 85.6 | Q | Q |
| District Heat | Q | Q | Q | Q | 970 | 1,319 | Q | Q | Q |
| Propane | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 245 | 829 | 983 | 1,946 | 8,456 | 9,157 | 126.0 | 98.1 | 107.4 |
| Natural Gas | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Chilled Water | Q | Q | Q | Q | 583 | 569 | Q | Q | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 123 | 281 | 374 | 1,439 | 3,686 | 4,086 | 85.5 | 76.3 | 91.6 |
| Natural Gas | Q | 563 | 709 | 682 | 4,919 | 6,417 | 142.4 | 114.4 | 110.5 |
| Fuel Oil | 68 | 87 | Q | 590 | 952 | Q | 115.5 | Q | Q |
| District Heat | Q | Q | Q | Q | 775 | 588 | Q | Q | Q |
| Propane | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | Q | 258 | 352 | 537 | 1,958 | 2,934 | Q | 131.5 | 120.1 |
| Natural Gas | Q | 400 | 415 | 474 | 3,106 | 3,052 | Q | 128.9 | 135.9 |
| Propane | Q | Q | Q | 266 | Q | Q | Q | Q | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | |
| Buildings with Space Heating | 292 | 972 | 1,247 | 2,819 | 9,778 | 11,223 | 103.5 | 99.4 | 111.1 |
| Buildings with Cooling | 254 | 916 | 1,100 | 2,021 | 8,932 | 9,790 | 125.7 | 102.5 | 112.4 |
| Buildings with Water Heating | 285 | 928 | 1,120 | 2,724 | 9,065 | 10,208 | 104.6 | 102.4 | 109.7 |
| Buildings with Cooking | 98 | 520 | 564 | 938 | 4,078 | 4,378 | 104.4 | 127.4 | 128.7 |
| Buildings with Manufacturing | Q | 71 | 44 | Q | 679 | 489 | Q | 105.2 | 90.0 |
| Buildings with Electricity Generation | Q | 385 | 387 | 567 | 2,678 | 2,558 | Q | 143.9 | 151.2 |
| **Percent of Floorspace Heated** | | | | | | | | | |
| Not Heated | Q | Q | Q | Q | Q | 372 | Q | Q | Q |
| 1 to 50 | Q | 41 | 45 | Q | 899 | 774 | Q | 45.1 | 58.2 |
| 51 to 99 | Q | 116 | 137 | 418 | 1,120 | 1,214 | Q | 103.7 | 113.2 |
| 100 | 242 | 816 | 1,065 | 1,913 | 7,758 | 9,235 | 126.3 | 105.1 | 115.3 |

## Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings*** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Percent of Floorspace Cooled** | | | | | | | | | |
| Not Cooled | 39 | 62 | 153 | 943 | 1,009 | 1,805 | 41.9 | 61.3 | 84.9 |
| 1 to 50 | 93 | 232 | 236 | 922 | 3,349 | 3,186 | 100.8 | 69.2 | 74.2 |
| 51 to 99 | Q | 286 | 305 | 550 | 2,551 | 2,436 | Q | 112.0 | 125.1 |
| 100 | 70 | 398 | 559 | 550 | 3,033 | 4,169 | 127.5 | 131.3 | 134.1 |
| **Percent Lit When Open** | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 44 | 114 | 116 | 953 | 1,796 | 1,575 | 45.8 | 63.3 | 73.6 |
| 51 to 99 | 105 | 321 | 377 | 1,070 | 2,529 | 3,641 | 97.9 | 126.9 | 103.4 |
| 100 | 143 | 535 | 737 | 830 | 5,221 | 5,418 | 172.4 | 102.5 | 136.0 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | Q | 372 | 946 | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | |
| Zero | 43 | 147 | 321 | 721 | 2,086 | 3,237 | 59.3 | 70.3 | 99.1 |
| 1 to 50 | 119 | 423 | 606 | 1,400 | 4,880 | 6,101 | 85.3 | 86.6 | 99.3 |
| 51 to 100 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Building Never Closed/ Electricity Not Used | Q | 375 | 261 | 764 | 2,711 | 1,916 | 161.3 | 138.2 | 136.1 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | |
| Heat Pumps | Q | 141 | 68 | Q | 1,019 | 719 | Q | 137.9 | 94.1 |
| Packaged Heat Pumps | Q | Q | 49 | Q | 656 | 541 | Q | Q | 91.4 |
| Split-System Heat Pumps | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Individual Room Heat Pumps | Q | Q | Q | Q | 430 | Q | Q | Q | Q |
| Furnaces | 82 | 193 | 393 | 990 | 2,606 | 4,572 | 83.2 | 74.1 | 85.9 |
| Individual Space Heaters | Q | 166 | 207 | 1,011 | 1,775 | 2,544 | 95.1 | 93.7 | 81.5 |
| District Heat | Q | Q | Q | Q | 1,000 | 1,420 | Q | Q | Q |
| Boilers | 159 | 502 | 499 | 1,465 | 4,763 | 4,466 | 108.4 | 105.4 | 111.7 |
| Packaged Heating Units | 110 | 255 | 294 | 615 | 2,297 | 2,531 | 178.9 | 110.8 | 116.2 |
| Other | Q | Q | 41 | Q | 408 | 434 | Q | Q | 94.7 |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | |
| Residential-Type Central Air Conditioners | Q | 190 | 209 | 291 | 2,100 | 2,040 | Q | 90.5 | 102.4 |
| Heat Pumps | Q | 141 | 71 | Q | 1,008 | 746 | Q | 140.0 | 95.7 |
| Packaged Heat Pumps | Q | Q | 53 | Q | 646 | 563 | Q | Q | 93.8 |
| Split-System Heat Pumps | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Individual Room Heat Pumps | Q | Q | Q | Q | 430 | Q | Q | Q | Q |
| Individual Air Conditioners | 105 | 247 | 225 | 925 | 2,762 | 2,199 | 113.0 | 89.5 | 102.2 |
| District Chilled Water | Q | Q | Q | Q | 583 | 569 | Q | Q | Q |
| Central Chillers | Q | 240 | 310 | 383 | 1,469 | 2,074 | Q | 163.7 | 149.7 |
| Packaged Air Conditioning Units | 140 | 517 | 604 | 872 | 5,128 | 5,505 | 160.9 | 100.8 | 109.8 |
| Swamp Coolers | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | 317 | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | |
| Heating | 70 | 234 | 320 | 1,013 | 2,961 | 3,273 | 69.3 | 79.0 | 97.9 |
| Cooling | 143 | 392 | 421 | 1,100 | 4,353 | 3,700 | 130.0 | 90.0 | 113.8 |

# Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings*** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Water Heating Equipment** | | | | | | | | | |
| Centralized System | 183 | 645 | 732 | 1,839 | 5,930 | 6,695 | 99.5 | 108.8 | 109.3 |
| Distributed System | Q | 142 | 167 | Q | 1,815 | 1,750 | Q | 78.2 | 95.3 |
| Combination of Centralized and Distributed System | Q | 141 | 221 | 375 | 1,319 | 1,763 | Q | 107.0 | 125.5 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | |
| Incandescent | 218 | 642 | 810 | 1,996 | 6,105 | 7,211 | 109.3 | 105.2 | 112.4 |
| Standard Fluorescent | 282 | 948 | 1,212 | 2,724 | 9,435 | 10,701 | 103.6 | 100.5 | 113.3 |
| Compact Fluorescent | 192 | 553 | 623 | 1,474 | 4,616 | 4,845 | 130.1 | 119.7 | 128.5 |
| High Intensity Discharge | 138 | 354 | 607 | 1,021 | 3,358 | 5,104 | 135.2 | 105.3 | 119.0 |
| Halogen | 107 | 323 | 412 | 769 | 2,812 | 3,259 | 139.4 | 114.8 | 126.3 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | |
| Any Refrigeration | 270 | 866 | 1,063 | 2,474 | 8,367 | 9,538 | 108.9 | 103.5 | 111.4 |
| Commercial Refrigeration | 160 | 598 | 683 | 1,107 | 4,830 | 5,286 | 144.6 | 123.9 | 129.2 |
| Walk-In Units | 138 | 450 | 541 | 889 | 3,563 | 3,860 | 155.4 | 126.2 | 140.2 |
| Cases or Cabinets | 144 | 497 | 504 | 849 | 3,656 | 3,702 | 170.0 | 135.8 | 136.1 |
| Residential-Type Units | 216 | 603 | 748 | 2,037 | 6,251 | 7,247 | 106.2 | 96.5 | 103.2 |
| Vending Machines | 200 | 585 | 760 | 1,569 | 4,990 | 6,583 | 127.5 | 117.3 | 115.4 |
| No Refrigeration | Q | 112 | 191 | 490 | 1,574 | 2,056 | Q | 70.9 | 92.7 |
| **Office Equipment (more than one may apply)** | | | | | | | | | |
| Computers | 280 | 917 | 1,123 | 2,521 | 8,996 | 9,882 | 111.2 | 102.0 | 113.7 |
| With Flat Screen Monitors | 159 | 589 | 566 | 1,156 | 4,839 | 4,584 | 137.5 | 121.7 | 123.4 |
| Dedicated Servers | 202 | 707 | 754 | 1,656 | 6,486 | 6,456 | 121.9 | 109.1 | 116.8 |
| Laser Printers | 160 | 525 | 606 | 1,569 | 5,526 | 5,678 | 102.1 | 95.0 | 106.8 |
| Inkjet Printers | 151 | 567 | 663 | 1,204 | 5,211 | 5,817 | 125.7 | 108.8 | 114.0 |
| FAX Machines | 266 | 899 | 1,018 | 2,367 | 8,806 | 9,138 | 112.2 | 102.1 | 111.5 |
| Photocopiers | 230 | 821 | 914 | 1,869 | 8,024 | 8,273 | 122.9 | 102.4 | 110.5 |
| **Number of Computers** | | | | | | | | | |
| None | 13 | 60 | 130 | 443 | 945 | 1,712 | 29.5 | 63.9 | 76.0 |
| 1 to 4 | 62 | 121 | 245 | 570 | 1,511 | 2,536 | 108.9 | 80.0 | 96.7 |
| 5 to 9 | Q | 68 | 115 | Q | 1,087 | 1,112 | Q | 62.9 | 103.9 |
| 10 to 19 | Q | 82 | 118 | 329 | 992 | 1,069 | Q | 82.4 | 110.3 |
| 20 to 49 | Q | 110 | 118 | 322 | 1,182 | 1,196 | Q | 92.9 | 98.6 |
| 50 to 99 | Q | 84 | 95 | Q | 1,018 | 744 | Q | Q | 128.1 |
| 100 to 249 | Q | 136 | 142 | Q | 1,054 | 1,221 | Q | 128.7 | 115.9 |
| 250 or More | Q | 316 | 290 | 439 | 2,151 | 2,005 | Q | 146.9 | 144.7 |
| **Number of Dedicated Servers** | | | | | | | | | |
| None | 92 | 270 | 500 | 1,308 | 3,455 | 5,139 | 70.0 | 78.2 | 97.2 |
| 1 to 4 | 109 | 409 | 433 | 1,028 | 4,219 | 4,202 | 106.2 | 96.8 | 103.1 |
| 5 to 9 | Q | Q | 93 | Q | 604 | 754 | Q | Q | 122.8 |
| 10 to 19 | Q | Q | 101 | Q | 437 | 647 | Q | Q | 156.2 |
| 20 to 49 | Q | Q | Q | Q | 411 | Q | Q | Q | Q |
| 50 or More | Q | Q | Q | Q | 815 | Q | Q | Q | Q |

## Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings* ..... ** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Number of Photocopiers** | | | | | | | | | |
| None ..... | 64 | 156 | 339 | 1,095 | 1,917 | 3,322 | 58.3 | 81.4 | 102.1 |
| One ..... | 52 | 179 | 242 | 683 | 2,344 | 2,620 | 76.1 | 76.5 | 92.2 |
| 2 to 4 ..... | 89 | 187 | 269 | 643 | 2,302 | 2,745 | 137.9 | 81.4 | 98.1 |
| 5 to 9 ..... | Q | 129 | 122 | Q | 1,250 | 1,013 | Q | 103.4 | 120.9 |
| 10 or More ..... | Q | 325 | 281 | 276 | 2,128 | 1,894 | Q | 152.9 | 148.2 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | |
| Commercial Food Preparation ..... | 98 | 520 | 564 | 938 | 4,078 | 4,378 | 104.4 | 127.4 | 128.7 |
| Activities with Large Amounts of Hot Water ..... | 139 | 367 | 490 | 995 | 2,927 | 3,546 | 139.5 | 125.4 | 138.1 |
| Separate Computer Area ..... | 158 | 605 | 558 | 1,045 | 4,880 | 4,759 | 151.0 | 124.0 | 117.3 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | |
| Variable Air-Volume System ..... | Q | 419 | 493 | 592 | 3,188 | 3,660 | Q | 131.5 | 134.8 |
| Economizer Cycle ..... | 135 | 452 | 586 | 824 | 3,317 | 4,350 | 163.8 | 136.3 | 134.6 |
| HVAC Maintenance ..... | 261 | 899 | 1,121 | 2,311 | 8,736 | 9,424 | 112.8 | 102.9 | 119.0 |
| Energy Management and Control System (EMCS) ..... | Q | 350 | 356 | 429 | 2,573 | 2,835 | Q | 135.9 | 125.7 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | |
| Multipaned Windows ..... | 243 | 707 | 919 | 2,307 | 7,001 | 8,023 | 105.2 | 101.0 | 114.6 |
| Tinted Window Glass ..... | Q | 495 | 663 | 803 | 4,155 | 5,393 | 165.4 | 119.2 | 123.0 |
| Reflective Window Glass ..... | Q | 159 | 180 | Q | 1,436 | 1,454 | Q | 110.4 | 124.1 |
| External Overhangs or Awnings ..... | Q | 237 | 294 | 577 | 2,110 | 2,537 | Q | 112.2 | 115.8 |
| Skylights or Atriums ..... | Q | 255 | 287 | 476 | 2,416 | 2,338 | Q | 105.4 | 122.8 |
| Daylighting Sensors ..... | Q | Q | 89 | Q | 319 | 608 | Q | Q | 146.7 |
| Specular Reflectors ..... | 157 | 517 | 741 | 1,390 | 4,444 | 5,813 | 112.9 | 116.4 | 127.5 |
| Electronic Ballasts ..... | 237 | 765 | 1,039 | 2,162 | 7,125 | 8,623 | 109.8 | 107.4 | 120.5 |
| Energy Management and Control System (EMCS) For Lighting ..... | Q | Q | 131 | Q | 758 | 988 | Q | Q | 133.1 |

## Table C7. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 1

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central | New England | Middle Atlantic | East North Central |
| **All Buildings* ..... ** | 294 | 978 | 1,254 | 2,964 | 9,941 | 11,595 | 99.0 | 98.3 | 108.1 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | |
| Heating ..... | 165 | 757 | 742 | 1,768 | 7,751 | 7,595 | 93.3 | 97.6 | 97.7 |
| Cooling ..... | 160 | 723 | 738 | 1,456 | 7,356 | 7,147 | 109.8 | 98.3 | 103.2 |
| Lighting ..... | 165 | 559 | 961 | 2,067 | 6,639 | 8,846 | 79.7 | 84.2 | 108.6 |
| Office Equipment ..... | 74 | 280 | 363 | 847 | 3,422 | 3,645 | 88.0 | 81.8 | 99.5 |

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.

# Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Building Floorspace (Square Feet)** | | | | | | | | | |
| 1,001 to 5,000 | 60 | 116 | 36 | 922 | 1,207 | 538 | 64.9 | 96.5 | 67.8 |
| 5,001 to 10,000 | 44 | 103 | Q | 722 | 1,387 | 393 | 60.5 | 74.0 | Q |
| 10,001 to 25,000 | 65 | 126 | Q | 1,164 | 2,240 | 810 | 55.9 | 56.4 | Q |
| 25,001 to 50,000 | 107 | 112 | Q | 949 | 1,672 | 498 | 112.5 | 67.3 | Q |
| 50,001 to 100,000 | 64 | 123 | 59 | 642 | 1,470 | 650 | 99.0 | 83.4 | 91.3 |
| 100,001 to 200,000 | 49 | 237 | Q | 614 | 2,087 | Q | 79.8 | 113.5 | Q |
| 200,001 to 500,000 | Q | 110 | Q | 395 | 1,072 | Q | Q | 102.2 | Q |
| Over 500,000 | Q | 137 | Q | Q | 1,123 | Q | Q | 122.1 | Q |
| **Principal Building Activity** | | | | | | | | | |
| Education | 45 | 198 | Q | 552 | 2,445 | 341 | 81.0 | 80.9 | Q |
| Food Sales | Q | Q | Q | Q | 223 | Q | Q | Q | Q |
| Food Service | Q | 112 | Q | 206 | 433 | 99 | Q | 259.2 | Q |
| Health Care | Q | 120 | Q | 247 | 749 | 219 | Q | 160.1 | Q |
| Inpatient | Q | Q | Q | Q | 469 | Q | Q | Q | Q |
| Outpatient | Q | Q | Q | Q | 280 | Q | Q | Q | Q |
| Lodging | 55 | 91 | Q | 595 | 939 | 368 | 92.6 | 96.8 | Q |
| Retail (Other Than Mall) | 31 | 66 | Q | 337 | 897 | 353 | 93.6 | 73.4 | Q |
| Office | 62 | 155 | 50 | 799 | 1,958 | 481 | 77.6 | 79.3 | 103.2 |
| Public Assembly | Q | 42 | Q | 377 | 440 | Q | Q | 94.3 | Q |
| Public Order and Safety | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Religious Worship | 18 | 29 | Q | 395 | 721 | 310 | 46.2 | 39.6 | Q |
| Service | 31 | Q | Q | 514 | 753 | 307 | 61.3 | 73.5 | Q |
| Warehouse and Storage | 51 | 66 | Q | 994 | 1,836 | 390 | 51.0 | 35.7 | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Vacant | Q | Q | Q | Q | 252 | Q | Q | Q | Q |
| **Year Constructed** | | | | | | | | | |
| Before 1920 | 39 | Q | Q | 553 | Q | Q | 70.2 | Q | Q |
| 1920 to 1945 | Q | 40 | Q | 496 | 650 | 300 | Q | 61.5 | Q |
| 1946 to 1959 | 39 | 88 | Q | 574 | 1,097 | 239 | 68.5 | 80.3 | Q |
| 1960 to 1969 | 71 | 98 | Q | 850 | 1,379 | 483 | 83.5 | 71.4 | Q |
| 1970 to 1979 | 87 | 152 | 64 | 1,039 | 1,464 | 789 | 83.3 | 103.6 | 80.7 |
| 1980 to 1989 | 41 | 221 | Q | 463 | 2,403 | 431 | 89.5 | 91.8 | 142.3 |
| 1990 to 1999 | 83 | 327 | 59 | 1,091 | 3,652 | 766 | 76.5 | 89.4 | 76.6 |
| 2000 to 2003 | 30 | 113 | Q | 420 | 1,272 | 342 | 72.6 | 89.0 | Q |
| **Climate Zone: 30-Year Average** | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | |
| More than 7,000 HDD | 225 | N | N | 2,565 | N | N | 87.9 | N | N |
| 5,500-7,000 HDD | 98 | N | N | Q | N | N | 74.1 | N | N |
| 4,000-5,499 HDD | 113 | 264 | Q | 1,597 | 2,616 | Q | 70.5 | 100.8 | 112.6 |
| Fewer than 4,000 HDD | N | 564 | Q | N | 6,422 | Q | N | 87.8 | 77.6 |
| 2,000 CDD or More and -- | | | | | | | | | |
| Fewer than 4,000 HDD | N | 237 | Q | N | 3,220 | Q | N | 73.5 | 99.5 |
| **Number of Floors** | | | | | | | | | |
| One | 149 | 370 | 102 | 2,227 | 5,753 | 1,641 | 66.9 | 64.3 | 62.1 |
| Two | 146 | 215 | 104 | 1,926 | 2,700 | 864 | 76.0 | 79.7 | 120.8 |
| Three | 64 | 99 | Q | 703 | 1,043 | 442 | 91.6 | 95.0 | Q |
| Four to Nine | 69 | 284 | 58 | 579 | 2,003 | 355 | 118.4 | 142.0 | 163.0 |
| Ten or More | Q | 95 | Q | Q | 759 | Q | Q | 125.3 | Q |

## Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | |
| Any Elevators | 169 | 549 | 134 | 1,627 | 4,612 | 923 | 104.1 | 119.1 | 145.0 |
| Number of Elevators | | | | | | | | | |
| One | 79 | 115 | Q | 860 | 1,475 | 369 | 91.5 | 78.0 | Q |
| Two to Five | 64 | 246 | Q | 644 | 1,900 | 386 | 98.6 | 129.6 | Q |
| Six or More | Q | 188 | Q | Q | 1,237 | 168 | Q | 152.0 | Q |
| Any Escalators | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Number of Workers (main shift)** | | | | | | | | | |
| Fewer than 5 | 77 | 115 | 40 | 1,763 | 2,517 | 1,107 | 43.9 | 45.7 | 35.8 |
| 5 to 9 | 46 | 75 | 36 | 598 | 1,284 | 476 | 76.5 | 58.5 | 74.8 |
| 10 to 19 | 60 | 97 | 24 | 867 | 1,392 | 350 | 69.6 | 69.9 | 69.1 |
| 20 to 49 | 99 | 152 | 97 | 876 | 1,773 | 701 | 113.6 | 86.0 | 138.6 |
| 50 to 99 | 73 | 128 | Q | 742 | 1,611 | Q | 98.3 | 79.7 | Q |
| 100 to 249 | Q | 239 | Q | 397 | 1,737 | Q | Q | 137.8 | Q |
| 250 or More | Q | 256 | Q | 242 | 1,943 | Q | Q | 131.9 | Q |
| **Weekly Operating Hours** | | | | | | | | | |
| Fewer than 40 | 18 | 41 | 9 | 700 | 1,211 | 416 | 26.4 | 34.0 | 22.5 |
| 40 to 48 | 55 | 126 | 61 | 1,036 | 2,109 | 770 | 53.1 | 59.5 | 78.6 |
| 49 to 60 | 100 | 165 | Q | 1,273 | 3,074 | 610 | 78.2 | 53.7 | 92.7 |
| 61 to 84 | 72 | 171 | 57 | 845 | 1,926 | 600 | 84.9 | 88.6 | 94.2 |
| 85 to 167 | Q | 197 | Q | 558 | 1,402 | Q | Q | 140.8 | Q |
| Open Continuously | 122 | 364 | 108 | 1,073 | 2,536 | 823 | 114.0 | 143.6 | 131.2 |
| **Ownership and Occupancy** | | | | | | | | | |
| Nongovernment Owned | 344 | 748 | 200 | 4,455 | 9,049 | 2,453 | 77.2 | 82.6 | 81.7 |
| Owner Occupied | 187 | 365 | 72 | 2,416 | 4,141 | 967 | 77.4 | 88.1 | 74.2 |
| Nonowner Occupied | 156 | 378 | 128 | 1,942 | 4,678 | 1,450 | 80.4 | 80.8 | 88.5 |
| Unoccupied | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Government Owned | 92 | 316 | 109 | 1,030 | 3,209 | 940 | 89.5 | 98.5 | 115.8 |
| Federal | Q | Q | Q | Q | Q | Q | Q | 126.6 | Q |
| State | Q | 96 | Q | Q | 726 | 507 | Q | 132.9 | Q |
| Local | 50 | 168 | 28 | 726 | 2,078 | 376 | 68.4 | 81.0 | 75.2 |
| **Vacancy Status** | | | | | | | | | |
| Completely Vacant | Q | Q | Q | Q | 241 | Q | Q | Q | Q |
| Mostly Vacant | Q | Q | N | Q | Q | Q | Q | Q | N |
| Partially Vacant | 62 | 137 | 26 | 864 | 1,980 | 397 | 71.5 | 69.3 | 64.8 |
| Not At All Vacant | 366 | 920 | 283 | 4,427 | 10,026 | 2,898 | 82.7 | 91.8 | 97.7 |
| **Number of Establishments** | | | | | | | | | |
| One | 310 | 752 | 223 | 4,044 | 8,902 | 2,707 | 76.7 | 84.5 | 82.4 |
| 2 to 5 | 89 | 193 | Q | 970 | 2,139 | 385 | 91.3 | 90.1 | Q |
| 6 to 10 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 11 to 20 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| More than 20 | Q | Q | Q | Q | 320 | Q | Q | Q | Q |
| Currently Unoccupied | Q | Q | Q | Q | 241 | Q | Q | Q | Q |

# Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Predominant Exterior Wall Material** | | | | | | | | | |
| Brick, Stone or Stucco | 192 | 514 | 177 | 2,082 | 6,051 | 1,824 | 92.4 | 84.9 | 97.1 |
| Concrete (Block or Poured) | 108 | 190 | 73 | 1,002 | 2,371 | 641 | 108.2 | 80.1 | 113.5 |
| Concrete Panels | Q | 189 | Q | 375 | 1,416 | Q | Q | 133.6 | Q |
| Siding or Shingles | 35 | 41 | Q | 711 | 649 | Q | 49.7 | 62.6 | Q |
| Metal Panels | 50 | 97 | Q | 1,229 | 1,450 | 616 | 40.4 | 66.6 | Q |
| Window Glass | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | N | Q | Q | N | Q | Q | N |
| **Predominant Roof Material** | | | | | | | | | |
| Built-Up | 137 | 373 | 119 | 1,349 | 4,125 | 827 | 101.8 | 90.4 | 143.5 |
| Shingles (Not Wood) | 72 | 132 | 48 | 1,129 | 1,889 | 638 | 64.1 | 69.7 | 75.1 |
| Metal Surfacing | 75 | 137 | 60 | 1,616 | 2,557 | 1,116 | 46.7 | 53.7 | 53.9 |
| Synthetic or Rubber | 115 | 292 | 70 | 990 | 2,449 | 643 | 116.3 | 119.2 | 108.5 |
| Slate or Tile | Q | 47 | Q | Q | 624 | Q | Q | 74.8 | Q |
| Wooden Materials | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Concrete | Q | Q | N | Q | Q | N | Q | Q | N |
| Other | Q | Q | N | Q | Q | N | Q | Q | N |
| No One Major Type | Q | Q | N | Q | Q | N | Q | Q | N |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | |
| Any Type of Renovation Since 1980 | 169 | 231 | 85 | 1,945 | 2,304 | 884 | 87.1 | 100.3 | 96.6 |
| Addition or Annex | 85 | 91 | 46 | 727 | 884 | 392 | 116.7 | 102.9 | 118.3 |
| Reduction In Floorspace | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 124 | 141 | 70 | 1,525 | 1,497 | 677 | 81.1 | 94.4 | 103.5 |
| Wall or Roof Replacement | 73 | 100 | 36 | 871 | 961 | 340 | 83.8 | 103.6 | 105.7 |
| Interior Wall Re-Configuration | 75 | 107 | Q | 877 | 1,036 | 334 | 85.0 | 103.7 | Q |
| HVAC Equipment Upgrade | 112 | 161 | 63 | 1,197 | 1,559 | 464 | 93.3 | 103.1 | 135.6 |
| Lighting Upgrade | 97 | 111 | 60 | 1,074 | 1,186 | 440 | 90.7 | 93.5 | 137.3 |
| Window Replacement | 40 | 43 | Q | 508 | 505 | Q | 78.7 | 85.5 | Q |
| Plumbing System Upgrade | 61 | 79 | Q | 721 | 782 | 262 | 84.0 | 101.6 | Q |
| Insulation Upgrade | 44 | Q | Q | 512 | 468 | Q | 86.6 | Q | Q |
| Other Renovation | N | Q | Q | N | Q | Q | N | Q | Q |
| No Renovations Since 1980 | 111 | 172 | 77 | 1,566 | 2,626 | 971 | 71.1 | 65.7 | 78.8 |
| Building Newer than 1980 | 155 | 660 | 147 | 1,974 | 7,327 | 1,538 | 78.7 | 90.1 | 95.8 |
| **Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 436 | 1,064 | 309 | 5,328 | 12,097 | 3,220 | 81.9 | 88.0 | 96.0 |
| Natural Gas | 350 | 693 | 241 | 3,593 | 6,326 | 2,281 | 97.4 | 109.6 | 105.6 |
| Fuel Oil | 112 | 291 | Q | 961 | 2,639 | 341 | 116.4 | 110.3 | Q |
| District Heat | Q | 220 | Q | Q | 1,243 | Q | Q | 177.4 | Q |
| District Chilled Water | Q | 115 | Q | Q | 667 | Q | Q | 172.3 | Q |
| Propane | 48 | 116 | Q | 991 | 1,548 | 265 | 48.2 | 75.1 | 39.4 |
| Other | Q | Q | Q | 222 | Q | Q | Q | Q | Q |

## Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 185 | 598 | 113 | 2,328 | 7,347 | 1,411 | 79.7 | 81.4 | 80.1 |
| Natural Gas | 327 | 504 | 223 | 3,422 | 4,852 | 2,110 | 95.7 | 103.8 | 105.7 |
| Fuel Oil | Q | 59 | Q | 460 | 627 | Q | Q | 93.5 | Q |
| District Heat | Q | 214 | Q | Q | 1,173 | Q | Q | 182.7 | Q |
| Propane | 23 | 64 | Q | 695 | 908 | Q | 33.3 | 70.9 | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | |
| Electricity | 70 | 334 | 61 | 1,058 | 4,968 | 791 | 65.7 | 67.2 | 77.2 |
| Natural Gas | 289 | 445 | 182 | 3,091 | 4,175 | 1,817 | 93.3 | 106.7 | 100.0 |
| Fuel Oil | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Heat | Q | 210 | Q | Q | 1,149 | Q | Q | 182.9 | Q |
| Propane | Q | Q | Q | 496 | 456 | Q | 29.7 | 39.7 | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 404 | 965 | 270 | 4,625 | 10,969 | 2,820 | 87.4 | 88.0 | 95.7 |
| Natural Gas | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Chilled Water | Q | 115 | Q | Q | 667 | Q | Q | 172.3 | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 190 | 558 | 140 | 2,391 | 7,033 | 1,581 | 79.6 | 79.3 | 88.9 |
| Natural Gas | 233 | 476 | 189 | 2,382 | 3,649 | 1,456 | 98.0 | 130.5 | 130.0 |
| Fuel Oil | Q | Q | N | Q | Q | N | Q | Q | N |
| District Heat | Q | 123 | Q | Q | 730 | Q | Q | 168.9 | Q |
| Propane | Q | Q | Q | 362 | 391 | Q | Q | Q | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 97 | 322 | 76 | 850 | 2,611 | 665 | 114.4 | 123.3 | 114.3 |
| Natural Gas | 123 | 405 | 109 | 913 | 2,741 | 786 | 134.8 | 147.7 | 138.2 |
| Propane | Q | Q | Q | Q | 374 | Q | Q | Q | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | |
| Buildings with Space Heating | 435 | 1,031 | 306 | 5,108 | 11,012 | 3,056 | 85.2 | 93.7 | 100.1 |
| Buildings with Cooling | 411 | 1,052 | 306 | 4,694 | 11,474 | 2,985 | 87.5 | 91.7 | 102.4 |
| Buildings with Water Heating | 417 | 1,026 | 300 | 4,720 | 10,714 | 2,858 | 88.4 | 95.8 | 105.0 |
| Buildings with Cooking | 167 | 514 | 129 | 1,472 | 4,198 | 1,055 | 113.4 | 122.5 | 122.3 |
| Buildings with Manufacturing | Q | Q | Q | Q | 296 | Q | Q | Q | Q |
| Buildings with Electricity Generation | 100 | 280 | Q | 760 | 2,396 | 324 | 132.1 | 117.0 | Q |
| **Percent of Floorspace Heated** | | | | | | | | | |
| Not Heated | Q | 33 | Q | 377 | 1,246 | 337 | Q | 26.1 | Q |
| 1 to 50 | 11 | 71 | Q | 356 | 1,105 | 353 | 31.6 | 64.3 | Q |
| 51 to 99 | 39 | 143 | 34 | 513 | 1,864 | 309 | 75.7 | 76.9 | 108.4 |
| 100 | 385 | 817 | 252 | 4,239 | 8,043 | 2,394 | 90.8 | 101.6 | 105.2 |

## Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Percent of Floorspace Cooled** | | | | | | | | | |
| Not Cooled | 25 | 12 | Q | 791 | 784 | 408 | 32.1 | 15.7 | Q |
| 1 to 50 | 100 | 125 | Q | 1,571 | 2,418 | 472 | 63.5 | 51.6 | Q |
| 51 to 99 | 131 | 230 | 53 | 1,325 | 2,624 | 459 | 98.5 | 87.6 | 115.2 |
| 100 | 180 | 697 | 229 | 1,797 | 6,431 | 2,054 | 100.4 | 108.4 | 111.6 |
| **Percent Lit When Open** | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 62 | 56 | 25 | 1,178 | 1,313 | 505 | 52.9 | 43.0 | 49.4 |
| 51 to 99 | 137 | 294 | 84 | 1,658 | 3,293 | 913 | 82.8 | 89.3 | 91.6 |
| 100 | 233 | 704 | 200 | 2,362 | 7,210 | 1,730 | 98.8 | 97.6 | 115.7 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | 281 | 363 | Q | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | |
| Zero | 113 | 206 | 29 | 1,936 | 3,431 | 623 | 58.4 | 60.0 | 46.4 |
| 1 to 50 | 184 | 443 | 161 | 2,192 | 5,687 | 1,682 | 84.1 | 77.9 | 95.8 |
| 51 to 100 | Q | Q | Q | Q | 491 | Q | Q | Q | Q |
| Building Never Closed/ Electricity Not Used | 122 | 364 | 108 | 1,197 | 2,649 | 942 | 102.2 | 137.5 | 114.7 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | |
| Heat Pumps | 29 | 297 | 48 | 339 | 3,677 | 542 | 84.5 | 80.8 | 89.4 |
| Packaged Heat Pumps | Q | 199 | Q | Q | 2,145 | 246 | Q | 92.6 | Q |
| Split-System Heat Pumps | Q | 103 | Q | Q | 1,459 | 214 | Q | 70.5 | Q |
| Individual Room Heat Pumps | Q | 79 | Q | Q | 1,039 | Q | Q | 76.1 | Q |
| Furnaces | 203 | 188 | 53 | 2,657 | 2,772 | 895 | 76.5 | 67.8 | 59.0 |
| Individual Space Heaters | 132 | 183 | 37 | 1,625 | 2,148 | 563 | 81.3 | 85.4 | 66.6 |
| District Heat | Q | 214 | Q | Q | 1,173 | Q | Q | 182.7 | Q |
| Boilers | 157 | 265 | 134 | 1,675 | 2,135 | 786 | 93.6 | 124.0 | 170.1 |
| Packaged Heating Units | 107 | 372 | 106 | 1,135 | 3,917 | 1,215 | 94.3 | 94.8 | 87.2 |
| Other | 33 | 51 | Q | 386 | 905 | Q | 86.1 | 56.8 | Q |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | |
| Residential-Type Central Air Conditioners | 134 | 147 | 36 | 1,568 | 1,843 | 489 | 85.1 | 79.6 | 72.8 |
| Heat Pumps | 28 | 307 | 54 | 317 | 3,742 | 586 | 88.3 | 82.0 | 92.6 |
| Packaged Heat Pumps | Q | 195 | Q | Q | 2,104 | 294 | Q | 92.5 | 87.4 |
| Split-System Heat Pumps | Q | 108 | Q | Q | 1,494 | 225 | Q | 72.3 | Q |
| Individual Room Heat Pumps | Q | 86 | Q | Q | 1,079 | Q | Q | 80.1 | Q |
| Individual Air Conditioners | 96 | 184 | 42 | 1,289 | 2,218 | 610 | 74.1 | 83.0 | 68.9 |
| District Chilled Water | Q | 115 | Q | Q | 667 | Q | Q | 172.3 | Q |
| Central Chillers | 93 | 319 | 87 | 768 | 2,489 | 594 | 121.7 | 128.3 | 146.8 |
| Packaged Air Conditioning Units | 247 | 478 | 151 | 2,581 | 5,520 | 1,555 | 95.6 | 86.5 | 97.3 |
| Swamp Coolers | N | Q | Q | N | Q | Q | N | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | |
| Heating | 141 | 179 | 76 | 1,754 | 2,253 | 886 | 80.4 | 79.5 | 85.3 |
| Cooling | 176 | 247 | 108 | 2,052 | 3,111 | 1,059 | 85.7 | 79.2 | 102.3 |

# Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Water Heating Equipment** | | | | | | | | | |
| Centralized System | 268 | 539 | 190 | 3,029 | 5,649 | 1,890 | 88.4 | 95.3 | 100.4 |
| Distributed System | 61 | 174 | 38 | 920 | 2,432 | 469 | 66.1 | 71.5 | 80.6 |
| Combination of Centralized and Distributed System | 89 | 314 | 73 | 771 | 2,633 | 499 | 114.9 | 119.1 | 145.4 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | |
| Incandescent | 321 | 743 | 198 | 3,762 | 7,028 | 1,984 | 85.4 | 105.7 | 99.7 |
| Standard Fluorescent | 425 | 1,028 | 301 | 5,006 | 11,245 | 3,022 | 84.8 | 91.4 | 99.6 |
| Compact Fluorescent | 214 | 579 | 186 | 1,983 | 4,856 | 1,262 | 108.1 | 119.3 | 147.4 |
| High Intensity Discharge | 140 | 421 | 74 | 1,515 | 4,053 | 706 | 92.6 | 104.0 | 104.6 |
| Halogen | 161 | 430 | 68 | 1,402 | 3,474 | 620 | 115.0 | 123.9 | 109.7 |
| Other | N | Q | Q | N | Q | Q | N | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | |
| Any Refrigeration | 393 | 1,003 | 295 | 4,544 | 10,256 | 2,829 | 86.5 | 97.8 | 104.4 |
| Commercial Refrigeration | 200 | 686 | 165 | 1,835 | 5,426 | 1,145 | 109.1 | 126.4 | 144.4 |
| Walk-In Units | 160 | 606 | 150 | 1,341 | 4,324 | 862 | 119.5 | 140.1 | 174.0 |
| Cases or Cabinets | 150 | 550 | 140 | 1,276 | 4,246 | 993 | 117.9 | 129.5 | 140.5 |
| Residential-Type Units | 277 | 603 | 165 | 3,545 | 7,043 | 1,834 | 78.2 | 85.7 | 90.1 |
| Vending Machines | 264 | 743 | 222 | 2,817 | 7,066 | 2,056 | 93.6 | 105.1 | 107.9 |
| No Refrigeration | 43 | 61 | Q | 941 | 2,002 | 565 | 45.9 | 30.7 | Q |
| **Office Equipment (more than one may apply)** | | | | | | | | | |
| Computers | 403 | 966 | 293 | 4,533 | 10,483 | 2,724 | 88.8 | 92.1 | 107.6 |
| With Flat Screen Monitors | 184 | 519 | 176 | 1,762 | 4,768 | 1,314 | 104.6 | 108.8 | 134.1 |
| Dedicated Servers | 274 | 684 | 200 | 2,796 | 6,839 | 1,606 | 97.9 | 99.9 | 124.7 |
| Laser Printers | 228 | 525 | 163 | 2,784 | 6,059 | 1,813 | 81.9 | 86.7 | 89.9 |
| Inkjet Printers | 251 | 619 | 181 | 2,489 | 6,138 | 1,502 | 101.0 | 100.8 | 120.3 |
| FAX Machines | 373 | 948 | 278 | 4,157 | 9,973 | 2,551 | 89.7 | 95.1 | 108.8 |
| Photocopiers | 322 | 831 | 241 | 3,586 | 8,821 | 2,211 | 89.7 | 94.2 | 109.1 |
| **Number of Computers** | | | | | | | | | |
| None | 34 | 98 | 16 | 952 | 1,775 | 669 | 35.3 | 55.5 | 23.8 |
| 1 to 4 | 81 | 175 | 63 | 1,207 | 2,124 | 807 | 67.5 | 82.4 | 78.2 |
| 5 to 9 | 78 | 71 | 35 | 826 | 1,154 | 520 | 94.4 | 61.5 | 67.7 |
| 10 to 19 | 50 | 78 | Q | 621 | 1,321 | Q | 80.8 | 59.3 | Q |
| 20 to 49 | 68 | 119 | 68 | 736 | 1,207 | 437 | 91.8 | 98.3 | 154.6 |
| 50 to 99 | Q | 118 | Q | 305 | 1,265 | Q | Q | 93.4 | Q |
| 100 to 249 | 56 | 140 | Q | 630 | 1,353 | Q | 89.0 | 103.4 | Q |
| 250 or More | Q | 264 | Q | 208 | 2,059 | Q | Q | 128.4 | Q |
| **Number of Dedicated Servers** | | | | | | | | | |
| None | 162 | 380 | 109 | 2,689 | 5,419 | 1,788 | 60.4 | 70.2 | 61.0 |
| 1 to 4 | 217 | 363 | 159 | 2,366 | 4,155 | 1,272 | 91.9 | 87.4 | 124.8 |
| 5 to 9 | Q | 103 | Q | 212 | 966 | Q | Q | 106.2 | Q |
| 10 to 19 | Q | 121 | Q | Q | 837 | Q | Q | 145.0 | Q |
| 20 to 49 | Q | Q | Q | Q | 524 | Q | Q | Q | Q |
| 50 or More | Q | Q | Q | Q | Q | Q | Q | 96.6 | Q |

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## Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings*** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Number of Photocopiers** | | | | | | | | | |
| None | 114 | 233 | 68 | 1,899 | 3,437 | 1,182 | 60.3 | 67.7 | 57.5 |
| One | 125 | 179 | 63 | 1,615 | 2,611 | 1,016 | 77.2 | 68.7 | 61.6 |
| 2 to 4 | 115 | 262 | 102 | 1,281 | 3,060 | 659 | 89.8 | 85.8 | 154.2 |
| 5 to 9 | Q | 119 | Q | 388 | 1,124 | Q | Q | 105.8 | Q |
| 10 or More | 42 | 270 | 44 | 302 | 2,026 | 284 | 139.8 | 133.5 | 155.2 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | |
| Commercial Food Preparation | 167 | 514 | 129 | 1,472 | 4,196 | 1,055 | 113.4 | 122.6 | 122.3 |
| Activities with Large Amounts of Hot Water | 193 | 518 | 115 | 1,678 | 4,178 | 949 | 115.2 | 124.1 | 121.6 |
| Separate Computer Area | 173 | 532 | 121 | 1,723 | 5,236 | 1,028 | 100.5 | 101.6 | 117.9 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | |
| Variable Air-Volume System | 155 | 447 | 120 | 1,342 | 3,818 | 788 | 115.5 | 117.2 | 152.4 |
| Economizer Cycle | 166 | 476 | 105 | 1,533 | 3,815 | 828 | 108.5 | 124.7 | 126.7 |
| HVAC Maintenance | 336 | 959 | 261 | 3,704 | 9,547 | 2,258 | 90.7 | 100.4 | 115.5 |
| Energy Management and Control System (EMCS) | 103 | 331 | 80 | 965 | 3,426 | 542 | 107.2 | 96.6 | 148.5 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | |
| Multipaned Windows | 333 | 696 | 180 | 3,738 | 7,191 | 1,685 | 89.2 | 96.7 | 107.1 |
| Tinted Window Glass | 179 | 644 | 129 | 1,925 | 6,498 | 1,169 | 93.1 | 99.1 | 110.1 |
| Reflective Window Glass | 69 | 167 | 56 | 711 | 1,655 | 257 | 97.0 | 100.8 | 216.5 |
| External Overhangs or Awnings | 148 | 367 | 111 | 1,688 | 3,814 | 1,022 | 87.4 | 96.3 | 108.4 |
| Skylights or Atriums | 93 | 173 | 43 | 929 | 1,831 | 434 | 100.2 | 94.4 | 99.4 |
| Daylighting Sensors | Q | Q | Q | Q | 448 | Q | Q | Q | Q |
| Specular Reflectors | 190 | 499 | 74 | 1,896 | 4,553 | 785 | 100.0 | 109.6 | 94.0 |
| Electronic Ballasts | 364 | 869 | 238 | 3,987 | 8,835 | 2,177 | 91.4 | 98.4 | 109.2 |
| Energy Management and Control System (EMCS) For Lighting | Q | 70 | Q | Q | 810 | Q | Q | 85.9 | Q |

## Table C8. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 2

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central | West North Central | South Atlantic | East South Central |
| **All Buildings* .....** | 436 | 1,064 | 309 | 5,485 | 12,258 | 3,393 | 79.5 | 86.8 | 91.1 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | |
| Heating ..... | 267 | 617 | 203 | 3,314 | 7,843 | 2,124 | 80.5 | 78.7 | 95.7 |
| Cooling ..... | 265 | 684 | 214 | 3,323 | 8,678 | 2,175 | 79.6 | 78.9 | 98.2 |
| Lighting ..... | 298 | 668 | 194 | 4,037 | 9,061 | 2,340 | 73.9 | 73.7 | 83.0 |
| Office Equipment ..... | 134 | 234 | 59 | 1,767 | 3,468 | 703 | 75.7 | 67.4 | 83.3 |

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.

# Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Building Floorspace (Square Feet)** | | | | | | | | | |
| 1,001 to 5,000 | 87 | 44 | 64 | 788 | 464 | 871 | 110.9 | 94.7 | 73.0 |
| 5,001 to 10,000 | 60 | 36 | 76 | 879 | 418 | 820 | 68.2 | 86.7 | 92.9 |
| 10,001 to 25,000 | 53 | 76 | 73 | 1,329 | 831 | 1,256 | 40.2 | 91.7 | 58.4 |
| 25,001 to 50,000 | 64 | 49 | 65 | 998 | 511 | 1,132 | 63.9 | 96.5 | 57.2 |
| 50,001 to 100,000 | 73 | 29 | 60 | 1,314 | 374 | 948 | 55.7 | 77.6 | 63.6 |
| 100,001 to 200,000 | 90 | Q | 66 | 1,131 | Q | 895 | 79.5 | Q | 73.8 |
| 200,001 to 500,000 | 54 | Q | 65 | 664 | 339 | 947 | 81.6 | Q | 69.0 |
| Over 500,000 | Q | Q | Q | Q | Q | 766 | Q | Q | Q |
| **Principal Building Activity** | | | | | | | | | |
| Education | 74 | 53 | 76 | 1,198 | 640 | 1,027 | 61.4 | 82.9 | 74.3 |
| Food Sales | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Food Service | Q | Q | Q | 232 | Q | 232 | Q | Q | Q |
| Health Care | 59 | Q | 57 | 309 | 230 | 323 | 192.3 | Q | 177.7 |
| Inpatient | Q | Q | Q | 235 | Q | 176 | Q | Q | Q |
| Outpatient | Q | Q | Q | Q | Q | 147 | Q | Q | Q |
| Lodging | Q | Q | 47 | 387 | 438 | 649 | Q | Q | 71.8 |
| Retail (Other Than Mall) | 39 | Q | 40 | 594 | 210 | 753 | 66.3 | Q | 52.8 |
| Office | 124 | 58 | 117 | 1,343 | 629 | 1,796 | 92.3 | 91.9 | 65.1 |
| Public Assembly | Q | Q | Q | 498 | Q | 468 | Q | Q | Q |
| Public Order and Safety | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Religious Worship | 20 | Q | Q | 467 | Q | 341 | 42.1 | Q | Q |
| Service | Q | Q | Q | 298 | 345 | 319 | Q | Q | Q |
| Warehouse and Storage | 30 | Q | 25 | 1,740 | 506 | 1,066 | 17.5 | Q | 23.3 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Vacant | Q | Q | Q | 350 | Q | Q | Q | Q | Q |
| **Year Constructed** | | | | | | | | | |
| Before 1920 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1920 to 1945 | Q | Q | 46 | 398 | Q | 783 | Q | Q | 59.2 |
| 1946 to 1959 | 31 | 25 | 48 | 460 | 255 | 873 | 66.8 | 98.4 | 55.5 |
| 1960 to 1969 | 45 | 60 | 60 | 675 | 592 | 1,005 | 66.6 | 101.5 | 60.0 |
| 1970 to 1979 | 104 | 105 | 85 | 1,473 | 924 | 1,162 | 70.8 | 113.3 | 73.5 |
| 1980 to 1989 | 167 | Q | 128 | 1,934 | 700 | 1,541 | 86.4 | 128.5 | 83.2 |
| 1990 to 1999 | 139 | 55 | 115 | 1,823 | 627 | 1,377 | 76.2 | 88.4 | 83.3 |
| 2000 to 2003 | 57 | Q | 36 | 943 | 307 | 731 | 60.0 | Q | 48.9 |
| **Climate Zone: 30-Year Average** | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | |
| More than 7,000 HDD | N | 209 | Q | N | 2,108 | Q | N | 99.2 | 92.5 |
| 5,500-7,000 HDD | N | 121 | 77 | N | 1,090 | 979 | N | 110.8 | 78.2 |
| 4,000-5,499 HDD | Q | N | Q | Q | N | 693 | Q | N | 94.0 |
| Fewer than 4,000 HDD | 171 | N | 329 | 1,992 | N | 5,401 | 85.7 | N | 60.9 |
| 2,000 CDD or More and -- | | | | | | | | | |
| Fewer than 4,000 HDD | 379 | 52 | Q | 5,385 | 476 | Q | 70.4 | 108.1 | Q |
| **Number of Floors** | | | | | | | | | |
| One | 264 | 160 | 205 | 4,362 | 1,871 | 3,098 | 60.6 | 85.5 | 66.1 |
| Two | 81 | 96 | 131 | 1,381 | 990 | 2,128 | 58.9 | 96.5 | 61.6 |
| Three | Q | Q | 42 | 453 | 181 | 715 | Q | Q | 59.4 |
| Four to Nine | 93 | 48 | 105 | 736 | 338 | 990 | Q | 141.1 | 106.4 |
| Ten or More | Q | Q | Q | 904 | Q | 704 | Q | Q | Q |

# Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | |
| Any Elevators | 255 | 144 | 228 | 2,414 | 1,069 | 2,785 | 105.5 | 134.9 | 81.8 |
| Number of Elevators | | | | | | | | | |
| One | 37 | 33 | 44 | 631 | 414 | 662 | 59.0 | 79.2 | 66.4 |
| Two to Five | 91 | Q | 92 | 808 | 275 | 1,085 | Q | Q | 84.4 |
| Six or More | 126 | Q | 92 | 975 | Q | 1,039 | 129.6 | Q | 88.8 |
| Any Escalators | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Number of Workers (main shift)** | | | | | | | | | |
| Fewer than 5 | 56 | 53 | 59 | 2,046 | 766 | 1,723 | 27.4 | 69.6 | 34.5 |
| 5 to 9 | 58 | 29 | 51 | 835 | 345 | 678 | 69.9 | 84.8 | 74.6 |
| 10 to 19 | 78 | 42 | 42 | 999 | 428 | 681 | 77.7 | 98.8 | 61.3 |
| 20 to 49 | 116 | 59 | 107 | 1,408 | 645 | 1,291 | 82.5 | 92.1 | 83.1 |
| 50 to 99 | 68 | 53 | 60 | 840 | 558 | 812 | 81.5 | 94.6 | 74.2 |
| 100 to 249 | 42 | Q | 84 | 451 | 311 | 1,086 | 93.5 | Q | 77.2 |
| 250 or More | 156 | Q | 126 | 1,259 | 622 | 1,364 | 124.2 | 172.1 | 92.7 |
| **Weekly Operating Hours** | | | | | | | | | |
| Fewer than 40 | 18 | Q | 25 | 918 | 291 | 804 | 19.2 | Q | 31.5 |
| 40 to 48 | 71 | 60 | 57 | 1,688 | 783 | 1,378 | 41.9 | 76.4 | 41.2 |
| 49 to 60 | 126 | 55 | 108 | 1,872 | 712 | 1,744 | 67.3 | 77.2 | 62.2 |
| 61 to 84 | 101 | 55 | 95 | 1,228 | 592 | 1,358 | 82.6 | 93.2 | 69.6 |
| 85 to 167 | 104 | Q | 81 | 882 | 357 | 950 | 118.3 | Q | 85.2 |
| Open Continuously | 155 | 155 | 164 | 1,250 | 940 | 1,401 | 124.2 | 164.7 | 116.8 |
| **Ownership and Occupancy** | | | | | | | | | |
| Nongovernment Owned | 459 | 268 | 392 | 6,325 | 2,611 | 6,125 | 72.6 | 102.5 | 64.0 |
| Owner Occupied | 190 | 86 | 179 | 2,761 | 976 | 2,672 | 68.9 | 88.1 | 67.1 |
| Nonowner Occupied | 268 | 181 | 211 | 3,230 | 1,624 | 3,189 | 83.0 | 111.6 | 66.1 |
| Unoccupied | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Government Owned | 116 | 114 | 138 | 1,512 | 1,064 | 1,510 | 76.6 | 107.2 | 91.2 |
| Federal | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| State | Q | Q | 63 | Q | Q | 565 | Q | Q | 111.2 |
| Local | 59 | 65 | 56 | 969 | 681 | 864 | 60.5 | 95.3 | 64.3 |
| **Vacancy Status** | | | | | | | | | |
| Completely Vacant | Q | Q | Q | 346 | Q | Q | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 139 | 74 | 90 | 1,685 | 750 | 1,335 | 82.6 | 99.0 | 67.5 |
| Not At All Vacant | 435 | 306 | 435 | 5,802 | 2,882 | 5,978 | 75.0 | 106.2 | 72.7 |
| **Number of Establishments** | | | | | | | | | |
| One | 399 | 308 | 381 | 5,339 | 2,794 | 4,982 | 74.8 | 110.1 | 76.6 |
| 2 to 5 | 78 | 45 | 88 | 1,217 | 538 | 1,362 | 63.9 | 83.5 | 64.7 |
| 6 to 10 | Q | Q | Q | Q | Q | 211 | Q | Q | Q |
| 11 to 20 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| More than 20 | Q | Q | Q | 639 | Q | 547 | Q | Q | Q |
| Currently Unoccupied | Q | Q | Q | 346 | Q | Q | Q | Q | Q |

## Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Predominant Exterior Wall Material** | | | | | | | | | |
| Brick, Stone or Stucco | 318 | 149 | 253 | 3,699 | 1,551 | 3,195 | 85.9 | 96.2 | 79.3 |
| Concrete (Block or Poured) | 80 | 55 | 102 | 973 | 462 | 1,315 | 82.1 | 118.4 | 77.4 |
| Concrete Panels | 85 | Q | 59 | 1,216 | 695 | 1,277 | 70.3 | 135.7 | 46.1 |
| Siding or Shingles | 23 | 16 | 41 | 281 | Q | 461 | 81.5 | 68.3 | 88.0 |
| Metal Panels | 41 | 54 | 45 | 1,360 | 634 | 918 | 30.4 | 85.1 | 48.9 |
| Window Glass | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | |
| Built-Up | 215 | 176 | 202 | 2,479 | 1,421 | 2,990 | 86.8 | 123.7 | 67.6 |
| Shingles (Not Wood) | 56 | 42 | 79 | 797 | 475 | 1,174 | 70.3 | 89.5 | 67.4 |
| Metal Surfacing | 93 | 67 | 55 | 2,635 | 944 | 1,001 | 35.3 | 70.7 | 54.4 |
| Synthetic or Rubber | 153 | 74 | 110 | 1,206 | 664 | 1,209 | 126.6 | 111.9 | 91.4 |
| Slate or Tile | Q | Q | 38 | 279 | Q | 552 | Q | Q | 69.7 |
| Wooden Materials | Q | Q | Q | Q | Q | 212 | Q | Q | Q |
| Concrete | Q | Q | Q | Q | Q | 353 | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | N | Q | Q | N | Q | Q | N | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | |
| Any Type of Renovation Since 1980 | 99 | 124 | 123 | 1,273 | 1,095 | 1,746 | 78.0 | 113.6 | 70.7 |
| Addition or Annex | Q | 71 | 39 | 529 | 551 | 428 | Q | 128.5 | 90.9 |
| Reduction In Floorspace | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 73 | 86 | 102 | 931 | 718 | 1,465 | 78.7 | 119.5 | 69.5 |
| Wall or Roof Replacement | Q | 59 | 56 | 562 | 504 | 789 | Q | 117.4 | 71.3 |
| Interior Wall Re-Configuration | 46 | 83 | 68 | 566 | 637 | 870 | 81.3 | 129.9 | 78.1 |
| HVAC Equipment Upgrade | 54 | 92 | 79 | 561 | 776 | 1,049 | 96.3 | 118.9 | 75.6 |
| Lighting Upgrade | 43 | 87 | 81 | 466 | 733 | 1,042 | 93.2 | 119.1 | 77.8 |
| Window Replacement | Q | 35 | 41 | 266 | 332 | 510 | Q | 106.0 | 80.9 |
| Plumbing System Upgrade | Q | 63 | 61 | 323 | 517 | 852 | Q | 122.3 | 71.7 |
| Insulation Upgrade | Q | Q | Q | 231 | Q | 411 | Q | Q | Q |
| Other Renovation | N | Q | Q | N | Q | Q | N | Q | Q |
| No Renovations Since 1980 | 113 | 91 | 127 | 1,864 | 945 | 2,240 | 60.8 | 96.5 | 56.9 |
| Building Newer than 1980 | 363 | 166 | 279 | 4,700 | 1,634 | 3,649 | 77.2 | 101.5 | 76.4 |
| **Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 575 | 381 | 530 | 7,449 | 3,633 | 7,397 | 77.2 | 105.0 | 71.6 |
| Natural Gas | 455 | 330 | 396 | 4,704 | 2,797 | 5,016 | 96.8 | 118.0 | 78.9 |
| Fuel Oil | 143 | Q | 141 | 1,141 | 626 | 1,497 | 125.1 | Q | 94.5 |
| District Heat | Q | Q | Q | Q | 253 | 413 | Q | Q | Q |
| District Chilled Water | Q | Q | Q | 284 | Q | 300 | Q | Q | Q |
| Propane | Q | Q | 73 | 547 | 555 | 618 | Q | 97.8 | 117.6 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |

## Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 302 | 143 | 226 | 4,300 | 1,389 | 3,526 | 70.2 | 102.7 | 64.2 |
| Natural Gas | 355 | 291 | 304 | 3,731 | 2,547 | 4,301 | 95.2 | 114.2 | 70.8 |
| Fuel Oil | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Heat | Q | Q | Q | Q | 253 | 362 | Q | Q | Q |
| Propane | Q | Q | Q | Q | 245 | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | |
| Electricity | 201 | 57 | 132 | 3,325 | 789 | 2,325 | 60.5 | 72.6 | 56.7 |
| Natural Gas | 323 | 269 | 272 | 3,308 | 2,277 | 3,633 | 97.8 | 117.9 | 74.9 |
| Fuel Oil | N | Q | Q | N | Q | Q | N | Q | Q |
| District Heat | Q | Q | Q | Q | Q | 362 | Q | Q | Q |
| Propane | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | N | Q | Q | N | Q | Q | N | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 532 | 344 | 449 | 6,834 | 3,186 | 6,328 | 77.9 | 107.9 | 70.9 |
| Natural Gas | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Chilled Water | Q | Q | Q | 284 | Q | 300 | Q | Q | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 211 | 94 | 174 | 3,267 | 1,236 | 2,771 | 64.4 | 76.1 | 62.7 |
| Natural Gas | 340 | 287 | 311 | 3,201 | 2,276 | 3,838 | 106.2 | 126.0 | 81.0 |
| Fuel Oil | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| District Heat | Q | Q | Q | Q | Q | 338 | Q | Q | Q |
| Propane | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 200 | Q | 104 | 1,623 | 791 | 1,192 | 123.5 | 142.5 | 87.2 |
| Natural Gas | 261 | 123 | 180 | 1,953 | 796 | 1,616 | 133.4 | 154.3 | 111.7 |
| Propane | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | |
| Buildings with Space Heating | 563 | 370 | 489 | 6,929 | 3,525 | 6,577 | 81.3 | 104.9 | 74.3 |
| Buildings with Cooling | 569 | 358 | 499 | 7,094 | 3,267 | 6,683 | 80.3 | 109.6 | 74.7 |
| Buildings with Water Heating | 543 | 373 | 507 | 6,341 | 3,422 | 6,426 | 85.6 | 108.8 | 78.8 |
| Buildings with Cooking | 324 | 156 | 241 | 2,628 | 1,209 | 2,280 | 123.1 | 129.4 | 105.6 |
| Buildings with Manufacturing | Q | Q | Q | Q | Q | 412 | Q | Q | Q |
| Buildings with Electricity Generation | 159 | Q | 138 | 1,297 | 738 | 1,504 | 122.9 | 157.0 | 91.7 |
| **Percent of Floorspace Heated** | | | | | | | | | |
| Not Heated | Q | Q | 41 | 908 | Q | 1,057 | Q | Q | 38.6 |
| 1 to 50 | 29 | Q | 51 | 1,384 | Q | 1,257 | 21.0 | Q | 40.7 |
| 51 to 99 | 76 | 70 | 97 | 718 | 569 | 1,381 | 105.9 | 123.7 | 70.1 |
| 100 | 458 | 286 | 341 | 4,828 | 2,721 | 3,940 | 94.9 | 105.0 | 86.5 |

## Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Percent of Floorspace Cooled** | | | | | | | | | |
| Not Cooled | Q | 24 | 31 | 744 | 407 | 952 | Q | 57.8 | 32.3 |
| 1 to 50 | 59 | 82 | 76 | 2,025 | 918 | 1,738 | 29.3 | 89.3 | 43.5 |
| 51 to 99 | 95 | 93 | 130 | 820 | 886 | 1,559 | 116.2 | 104.4 | 83.6 |
| 100 | 415 | 183 | 293 | 4,249 | 1,463 | 3,386 | 97.6 | 125.4 | 86.5 |
| **Percent Lit When Open** | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 51 | 27 | 45 | 1,371 | 382 | 1,130 | 37.5 | 70.8 | 39.5 |
| 51 to 99 | 137 | 117 | 165 | 1,928 | 1,095 | 2,161 | 70.9 | 106.7 | 76.4 |
| 100 | 384 | 237 | 315 | 3,933 | 2,136 | 3,947 | 97.7 | 111.1 | 79.9 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | 553 | Q | Q | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | |
| Zero | 98 | 76 | 100 | 2,239 | 1,118 | 1,994 | 43.9 | 68.0 | 50.0 |
| 1 to 50 | 290 | 146 | 254 | 3,658 | 1,526 | 3,823 | 79.4 | 95.5 | 66.3 |
| 51 to 100 | Q | Q | Q | 374 | Q | 180 | Q | Q | Q |
| Building Never Closed/ Electricity Not Used | 155 | 155 | 164 | 1,565 | 973 | 1,638 | 99.2 | 159.0 | 99.9 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | |
| Heat Pumps | 49 | Q | 77 | 722 | 333 | 1,268 | 68.3 | Q | 60.8 |
| Packaged Heat Pumps | Q | Q | 42 | 537 | Q | 741 | Q | Q | 57.0 |
| Split-System Heat Pumps | Q | Q | 24 | Q | Q | 305 | Q | Q | 77.6 |
| Individual Room Heat Pumps | Q | Q | Q | Q | Q | 431 | Q | Q | Q |
| Furnaces | 156 | 102 | 123 | 2,048 | 1,302 | 1,773 | 76.1 | 78.2 | 69.4 |
| Individual Space Heaters | 55 | 62 | 84 | 898 | 692 | 1,290 | 61.4 | 89.1 | 65.3 |
| District Heat | Q | Q | Q | Q | 253 | 362 | Q | Q | Q |
| Boilers | 161 | 182 | 186 | 1,472 | 1,359 | 2,302 | 109.4 | 133.7 | 80.9 |
| Packaged Heating Units | 245 | 77 | 164 | 2,998 | 748 | 2,564 | 81.6 | 102.8 | 63.9 |
| Other | Q | Q | Q | 399 | 347 | Q | Q | Q | Q |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | |
| Residential-Type Central Air Conditioners | 72 | 31 | 58 | 1,523 | 341 | 841 | 47.5 | 91.7 | 69.5 |
| Heat Pumps | Q | Q | 79 | 595 | 430 | 1,355 | Q | Q | 58.2 |
| Packaged Heat Pumps | Q | Q | 41 | 451 | Q | 742 | Q | Q | 55.1 |
| Split-System Heat Pumps | Q | Q | Q | Q | Q | 322 | Q | Q | Q |
| Individual Room Heat Pumps | Q | Q | 31 | Q | Q | 546 | Q | Q | 57.3 |
| Individual Air Conditioners | 45 | 76 | 60 | 806 | 730 | 1,019 | 56.3 | 104.2 | 58.8 |
| District Chilled Water | Q | Q | Q | 284 | Q | 300 | Q | Q | Q |
| Central Chillers | 194 | Q | 134 | 1,771 | 621 | 1,466 | 109.5 | 159.2 | 91.5 |
| Packaged Air Conditioning Units | 268 | 191 | 266 | 3,325 | 1,655 | 3,826 | 80.6 | 115.2 | 69.6 |
| Swamp Coolers | Q | 85 | 50 | Q | 874 | 468 | Q | 96.9 | 105.9 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | |
| Heating | 115 | 135 | 97 | 1,675 | 1,133 | 1,455 | 68.7 | 118.7 | 67.0 |
| Cooling | 167 | 161 | 135 | 2,245 | 1,356 | 2,018 | 74.4 | 118.5 | 66.7 |

# Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Water Heating Equipment** | | | | | | | | | |
| Centralized System | 366 | 194 | 316 | 3,998 | 1,928 | 3,712 | 91.6 | 100.4 | 85.2 |
| Distributed System | 100 | 47 | 70 | 1,664 | 566 | 1,415 | 60.2 | 82.5 | 49.5 |
| Combination of Centralized and Distributed System | 76 | 132 | 120 | 679 | 928 | 1,299 | 112.4 | 142.4 | 92.5 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | |
| Incandescent | 379 | 274 | 330 | 4,033 | 2,443 | 3,965 | 94.0 | 112.3 | 83.2 |
| Standard Fluorescent | 557 | 376 | 515 | 6,955 | 3,534 | 7,066 | 80.0 | 106.5 | 72.9 |
| Compact Fluorescent | 305 | 211 | 345 | 2,764 | 1,748 | 4,024 | 110.5 | 120.9 | 85.6 |
| High Intensity Discharge | 125 | 101 | 181 | 1,470 | 977 | 2,438 | 84.9 | 103.1 | 74.3 |
| Halogen | 177 | 124 | 179 | 2,099 | 993 | 2,275 | 84.2 | 125.1 | 78.8 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | |
| Any Refrigeration | 520 | 335 | 469 | 6,018 | 3,028 | 5,919 | 86.4 | 110.8 | 79.2 |
| Commercial Refrigeration | 374 | 193 | 276 | 3,067 | 1,398 | 2,674 | 121.9 | 137.8 | 103.4 |
| Walk-In Units | 317 | 162 | 242 | 2,284 | 1,073 | 2,059 | 138.7 | 151.3 | 117.4 |
| Cases or Cabinets | 316 | 164 | 238 | 2,425 | 1,093 | 2,185 | 130.4 | 149.6 | 109.1 |
| Residential-Type Units | 334 | 216 | 303 | 4,285 | 2,232 | 4,410 | 77.9 | 97.0 | 68.6 |
| Vending Machines | 381 | 256 | 311 | 4,412 | 2,058 | 3,783 | 86.2 | 124.2 | 82.2 |
| No Refrigeration | 55 | 46 | 61 | 1,819 | 647 | 1,715 | 30.3 | 71.2 | 35.6 |
| **Office Equipment (more than one may apply)** | | | | | | | | | |
| Computers | 535 | 357 | 501 | 6,507 | 3,282 | 6,698 | 82.2 | 108.8 | 74.8 |
| With Flat Screen Monitors | 310 | 173 | 289 | 3,053 | 1,365 | 3,575 | 101.6 | 127.1 | 80.9 |
| Dedicated Servers | 359 | 228 | 353 | 4,204 | 1,959 | 4,335 | 85.3 | 116.6 | 81.3 |
| Laser Printers | 278 | 227 | 297 | 3,694 | 2,165 | 3,723 | 75.2 | 105.0 | 79.6 |
| Inkjet Printers | 354 | 212 | 304 | 3,840 | 1,901 | 4,108 | 92.1 | 111.5 | 74.1 |
| FAX Machines | 521 | 333 | 456 | 6,258 | 2,983 | 6,140 | 83.2 | 111.5 | 74.3 |
| Photocopiers | 407 | 303 | 396 | 5,281 | 2,753 | 5,439 | 77.0 | 110.1 | 72.8 |
| **Number of Computers** | | | | | | | | | |
| None | 40 | 24 | 28 | 1,330 | 393 | 937 | 30.3 | 61.8 | 30.2 |
| 1 to 4 | 125 | 64 | 79 | 1,488 | 707 | 1,444 | 83.9 | 90.0 | 54.7 |
| 5 to 9 | 46 | 49 | 63 | 864 | 450 | 649 | 53.1 | 109.5 | 96.8 |
| 10 to 19 | 49 | 37 | 53 | 910 | 371 | 825 | 53.6 | 99.2 | 64.3 |
| 20 to 49 | 63 | 45 | 81 | 780 | 548 | 1,006 | 81.3 | 81.5 | 80.8 |
| 50 to 99 | 43 | Q | 47 | 490 | 285 | 784 | 87.3 | Q | 59.4 |
| 100 to 249 | 55 | 56 | 65 | 660 | 448 | 869 | 83.2 | 124.9 | 75.0 |
| 250 or More | 154 | Q | 114 | 1,315 | 473 | 1,122 | 117.4 | Q | 101.2 |
| **Number of Dedicated Servers** | | | | | | | | | |
| None | 217 | 153 | 177 | 3,633 | 1,716 | 3,299 | 59.6 | 89.3 | 53.7 |
| 1 to 4 | 193 | 140 | 210 | 2,782 | 1,428 | 2,665 | 69.4 | 98.2 | 78.9 |
| 5 to 9 | Q | Q | 54 | Q | Q | 601 | Q | Q | 89.5 |
| 10 to 19 | Q | Q | 37 | Q | Q | 414 | Q | Q | 90.3 |
| 20 to 49 | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 50 or More | Q | Q | Q | Q | Q | Q | Q | Q | Q |

## Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings*** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Number of Photocopiers** | | | | | | | | | |
| None | 168 | 78 | 134 | 2,557 | 921 | 2,196 | 65.8 | 84.9 | 60.9 |
| One | 98 | 84 | 108 | 1,833 | 995 | 1,757 | 53.4 | 84.6 | 61.6 |
| 2 to 4 | 118 | 81 | 112 | 1,799 | 887 | 1,706 | 65.3 | 90.9 | 65.5 |
| 5 to 9 | Q | Q | 58 | 405 | Q | 634 | Q | Q | 91.4 |
| 10 or More | 146 | 121 | 118 | 1,243 | 690 | 1,341 | 117.7 | 174.6 | 88.0 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | |
| Commercial Food Preparation | 324 | 156 | 239 | 2,628 | 1,209 | 2,269 | 123.1 | 129.4 | 105.4 |
| Activities with Large Amounts of Hot Water | 222 | 182 | 239 | 1,776 | 1,384 | 2,048 | 124.9 | 131.3 | 116.8 |
| Separate Computer Area | 290 | 196 | 262 | 3,132 | 1,607 | 3,462 | 92.5 | 121.9 | 75.6 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | |
| Variable Air-Volume System | 277 | 155 | 208 | 2,743 | 1,236 | 2,232 | 101.1 | 125.1 | 93.0 |
| Economizer Cycle | 232 | 184 | 252 | 1,988 | 1,383 | 3,069 | 116.9 | 133.1 | 82.2 |
| HVAC Maintenance | 512 | 333 | 488 | 5,836 | 3,065 | 6,282 | 87.7 | 108.8 | 77.8 |
| Energy Management and Control System (EMCS) | 197 | 117 | 178 | 1,834 | 857 | 2,170 | 107.6 | 136.6 | 82.0 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | |
| Multipaned Windows | 321 | 289 | 240 | 3,429 | 2,656 | 2,880 | 93.7 | 108.9 | 83.4 |
| Tinted Window Glass | 356 | 218 | 280 | 4,283 | 1,617 | 4,043 | 83.1 | 134.9 | 69.3 |
| Reflective Window Glass | 118 | 41 | 99 | 1,098 | 489 | 1,219 | 107.0 | 83.3 | 80.8 |
| External Overhangs or Awnings | 191 | 171 | 158 | 1,950 | 1,521 | 2,025 | 97.7 | 112.4 | 78.2 |
| Skylights or Atriums | 163 | 132 | 115 | 1,656 | 1,001 | 1,465 | 98.5 | 131.6 | 78.8 |
| Daylighting Sensors | Q | Q | 79 | Q | Q | 674 | Q | Q | 117.9 |
| Specular Reflectors | 239 | 176 | 236 | 2,533 | 1,307 | 3,396 | 94.2 | 134.5 | 69.4 |
| Electronic Ballasts | 472 | 331 | 430 | 5,446 | 2,905 | 5,621 | 86.7 | 113.9 | 76.5 |
| Energy Management and Control System (EMCS) For Lighting | Q | Q | 87 | 629 | Q | 923 | Q | Q | 94.8 |

## Table C9. Consumption and Gross Energy Intensity by Census Division for Sum of Major Fuels for Non-Mall Buildings, 2003: Part 3

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific | West South Central | Mountain | Pacific |
| **All Buildings* ..... ** | 575 | 381 | 530 | 7,837 | 3,675 | 7,635 | 73.4 | 103.8 | 69.4 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | |
| Heating ..... | 376 | 261 | 352 | 4,688 | 2,456 | 5,183 | 80.3 | 106.4 | 67.9 |
| Cooling ..... | 411 | 269 | 380 | 5,241 | 2,449 | 5,380 | 78.5 | 109.8 | 70.6 |
| Lighting ..... | 398 | 222 | 354 | 5,715 | 2,608 | 5,674 | 69.6 | 85.0 | 62.3 |
| Office Equipment ..... | 109 | 88 | 125 | 2,255 | 1,030 | 2,260 | 48.4 | 85.9 | 55.2 |

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.

# Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Building Floorspace (Square Feet)** | | | | | | | | | | | | | | | |
| 1,001 to 5,000 | 143 | 187 | 90 | 170 | 95 | 1,313 | 1,709 | 1,010 | 1,915 | 975 | 108.7 | 109.6 | 88.8 | 89.0 | 97.9 |
| 5,001 to 10,000 | 110 | 137 | 91 | 156 | 69 | 1,248 | 1,725 | 1,077 | 2,024 | 959 | 88.1 | 79.3 | 84.6 | 77.1 | 71.7 |
| 10,001 to 25,000 | 183 | 286 | 146 | 166 | 118 | 2,406 | 3,506 | 1,498 | 3,176 | 2,073 | 75.9 | 81.6 | 97.6 | 52.3 | 56.9 |
| 25,001 to 50,000 | 146 | 212 | 125 | 152 | 107 | 1,547 | 2,424 | 1,382 | 2,381 | 1,647 | 94.4 | 87.6 | 90.3 | 63.7 | 64.8 |
| 50,001 to 100,000 | 149 | 273 | 183 | 191 | 118 | 1,480 | 2,780 | 2,011 | 2,352 | 1,668 | 100.8 | 98.0 | 90.8 | 81.2 | 70.6 |
| 100,001 to 200,000 | 117 | 336 | 187 | 283 | 141 | 1,311 | 2,889 | 1,881 | 2,597 | 1,538 | 89.4 | 116.3 | 99.2 | 109.1 | 91.7 |
| 200,001 to 500,000 | 129 | 226 | 168 | 136 | 94 | 1,150 | 2,007 | 1,678 | 1,612 | 1,047 | 111.8 | 112.5 | 99.8 | 84.1 | 89.6 |
| Over 500,000 | Q | 272 | 254 | 132 | Q | 1,073 | 1,766 | 1,966 | 1,573 | 1,282 | Q | 153.8 | 129.4 | 83.9 | Q |
| **Principal Building Activity** | | | | | | | | | | | | | | | |
| Education | 141 | 238 | 131 | 186 | 123 | 1,537 | 2,800 | 1,403 | 2,435 | 1,698 | 91.6 | 85.2 | 93.5 | 76.6 | 72.6 |
| Food Sales | Q | Q | Q | Q | Q | 271 | 368 | Q | 273 | Q | Q | Q | Q | Q | Q |
| Food Service | 52 | 96 | Q | 134 | Q | 227 | 400 | 219 | 440 | 366 | 230.1 | 238.7 | Q | 305.4 | Q |
| Health Care | 96 | 161 | 108 | 145 | 83 | 475 | 784 | 564 | 844 | 496 | 202.4 | 205.8 | 191.4 | 171.9 | 167.7 |
| Inpatient | 65 | 127 | Q | 127 | Q | 262 | 450 | 323 | 592 | 278 | 246.1 | 283.3 | Q | 215.0 | Q |
| Outpatient | Q | 34 | Q | Q | Q | 213 | 334 | 240 | 252 | 218 | Q | 101.5 | Q | Q | Q |
| Lodging | 69 | 174 | 110 | 104 | Q | 768 | 1,314 | 1,132 | 1,275 | 608 | 90.1 | 132.1 | Q | 81.4 | Q |
| Retail (Other Than Mall) | 73 | 64 | 54 | 74 | 55 | 710 | 865 | 695 | 1,454 | 592 | 103.0 | 73.5 | 77.7 | 50.7 | 92.0 |
| Office | 145 | 364 | 298 | 162 | 165 | 1,593 | 3,165 | 3,125 | 2,341 | 1,985 | 90.7 | 114.9 | 95.4 | 69.3 | 83.2 |
| Public Assembly | 90 | 74 | 70 | 101 | 35 | 876 | 818 | 806 | 910 | 529 | 102.2 | 90.8 | Q | 111.1 | 65.8 |
| Public Order and Safety | Q | Q | Q | Q | Q | Q | 360 | Q | Q | Q | Q | Q | Q | Q | Q |
| Religious Worship | 26 | 62 | 26 | 31 | 19 | 408 | 1,320 | 499 | 1,039 | 488 | 62.9 | 46.9 | 52.8 | 29.4 | 38.2 |
| Service | 95 | 84 | 64 | 49 | Q | 944 | 1,185 | 644 | 969 | 308 | 100.4 | 71.2 | 99.5 | 50.3 | Q |
| Warehouse and Storage | 78 | 201 | 73 | 73 | 31 | 1,704 | 2,639 | 1,479 | 2,419 | 1,836 | 45.7 | 76.1 | 49.5 | 30.1 | 16.9 |
| Other | Q | Q | Q | Q | Q | 334 | 467 | Q | Q | Q | Q | Q | Q | Q | Q |
| Vacant | Q | Q | Q | Q | Q | 543 | 849 | Q | 569 | 318 | Q | Q | Q | Q | Q |
| **Year Constructed** | | | | | | | | | | | | | | | |
| Before 1920 | 109 | 99 | Q | Q | Q | 1,227 | 1,413 | 731 | 290 | Q | 88.6 | 70.2 | 89.0 | Q | Q |
| 1920 to 1945 | 86 | 262 | 199 | 57 | Q | 1,089 | 2,266 | 1,985 | 1,239 | 405 | 79.3 | 115.5 | 100.2 | 45.7 | Q |
| 1946 to 1959 | 86 | 236 | 124 | 114 | 28 | 1,093 | 2,508 | 1,446 | 1,663 | 552 | 78.7 | 94.2 | 86.0 | 68.3 | 49.9 |
| 1960 to 1969 | 156 | 254 | 158 | 141 | 81 | 1,447 | 2,576 | 1,576 | 1,997 | 1,046 | 108.0 | 98.8 | 100.3 | 70.5 | 77.7 |
| 1970 to 1979 | 274 | 344 | 212 | 217 | 143 | 2,496 | 3,259 | 1,942 | 2,783 | 1,796 | 109.8 | 105.7 | 109.2 | 77.9 | 79.9 |
| 1980 to 1989 | 110 | 343 | 222 | 354 | 217 | 1,123 | 2,808 | 2,110 | 3,850 | 2,576 | 98.2 | 122.2 | 105.3 | 91.9 | 84.3 |
| 1990 to 1999 | 195 | 266 | 164 | 371 | 264 | 2,120 | 2,655 | 1,764 | 4,207 | 3,235 | 92.2 | 100.3 | 93.1 | 88.3 | 81.6 |
| 2000 to 2003 | 69 | 124 | 98 | 112 | 108 | 934 | 1,322 | 949 | 1,601 | 1,456 | 73.6 | 93.5 | 103.3 | 70.0 | 74.4 |
| **Census Region and Division** | | | | | | | | | | | | | | | |
| Northeast | 211 | 597 | 588 | N | N | 2,567 | 5,989 | 5,440 | N | N | 82.2 | 99.8 | 108.0 | N | N |
| New England | 62 | 282 | N | N | N | Q | 2,463 | N | N | N | 63.1 | 114.5 | N | N | N |
| Middle Atlantic | Q | 315 | 588 | N | N | 1,577 | 3,526 | 5,440 | N | N | 94.2 | 89.4 | 108.0 | N | N |
| Midwest | 573 | 1,112 | 114 | N | N | 5,910 | 10,584 | 1,609 | N | N | 97.0 | 105.1 | 70.5 | N | N |
| East North Central | 333 | 1,010 | N | N | N | 3,208 | 9,215 | N | N | N | 103.8 | 109.6 | N | N | N |
| West North Central | 240 | 102 | 114 | N | N | 2,702 | Q | 1,609 | N | N | 88.9 | 74.6 | 70.5 | N | N |
| South | N | N | 472 | 997 | 796 | N | N | 4,736 | 11,506 | 10,497 | N | N | 99.7 | 86.6 | 75.8 |
| South Atlantic | N | N | 311 | 635 | 296 | N | N | 3,065 | 7,126 | 3,807 | N | N | 101.4 | 89.0 | 77.7 |
| East South Central | N | N | Q | Q | Q | N | N | Q | Q | Q | N | N | 112.3 | 78.5 | 98.9 |
| West South Central | N | N | Q | 195 | 457 | N | N | Q | 2,255 | 6,258 | N | N | Q | 86.7 | 73.0 |
| West | 302 | 219 | Q | 389 | 84 | 3,052 | 2,234 | 718 | 6,125 | 692 | 99.0 | 98.2 | 96.4 | 63.5 | 121.0 |
| Mountain | 244 | 136 | N | N | 65 | 2,446 | 1,181 | N | N | 580 | 99.9 | 115.5 | N | N | 112.9 |
| Pacific | Q | 83 | Q | 389 | Q | Q | Q | 718 | 6,125 | Q | 95.1 | 78.8 | 96.4 | 63.5 | Q |

# Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Number of Floors** | | | | | | | | | | | | | | | |
| One | 320 | 588 | 247 | 484 | 298 | 3,750 | 6,253 | 3,156 | 8,011 | 4,810 | 85.4 | 94.1 | 78.2 | 60.4 | 61.9 |
| Two | 275 | 383 | 243 | 271 | 139 | 3,146 | 4,867 | 2,623 | 3,423 | 2,210 | 87.5 | 78.7 | 92.5 | 79.1 | 62.9 |
| Three | 143 | 220 | 101 | 123 | 32 | 1,664 | 2,643 | 1,228 | 1,473 | 492 | 86.1 | 83.4 | 82.6 | 83.4 | 64.0 |
| Four to Nine | 206 | 393 | 328 | 264 | 145 | 1,731 | 2,525 | 2,744 | 1,982 | 1,103 | 119.3 | 155.7 | 119.5 | 133.2 | 131.2 |
| Ten or More | Q | 176 | 215 | 71 | Q | 330 | 1,047 | 1,752 | 850 | 968 | Q | 168.0 | 122.5 | 83.5 | Q |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | | | | | | | |
| Any Elevators | 422 | 842 | 659 | 556 | 348 | 4,047 | 6,462 | 5,728 | 4,967 | 3,413 | 104.2 | 130.3 | 115.0 | 111.9 | 101.9 |
| Number of Elevators | | | | | | | | | | | | | | | |
| One | 162 | 246 | 146 | 114 | 63 | 1,714 | 2,647 | 1,539 | 1,272 | 1,048 | 94.5 | 93.1 | 95.0 | 89.5 | 60.4 |
| Two to Five | 185 | 335 | 234 | 272 | 131 | 1,906 | 2,479 | 2,282 | 2,263 | 1,199 | 97.3 | 135.2 | 102.5 | 120.3 | 109.2 |
| Six or More | 74 | 261 | 278 | 170 | 154 | 427 | 1,336 | 1,908 | 1,431 | 1,166 | 173.9 | 195.1 | 146.0 | 118.5 | 131.8 |
| Any Escalators | Q | Q | Q | Q | Q | Q | Q | 788 | Q | Q | Q | Q | Q | Q | Q |
| **Number of Workers (main shift)** | | | | | | | | | | | | | | | |
| Fewer than 5 | 164 | 348 | 93 | 140 | 72 | 2,699 | 4,857 | 1,755 | 4,076 | 2,106 | 60.9 | 71.7 | 53.1 | 34.2 | 34.1 |
| 5 to 9 | 83 | 139 | 79 | 109 | 59 | 1,035 | 1,529 | 1,013 | 1,646 | 944 | 79.9 | 91.0 | 77.9 | 65.9 | 62.9 |
| 10 to 19 | 124 | 166 | 103 | 112 | 89 | 1,374 | 2,155 | 1,359 | 1,599 | 1,317 | 90.5 | 76.8 | 75.9 | 70.3 | 67.6 |
| 20 to 49 | 220 | 254 | 232 | 226 | 118 | 2,014 | 2,709 | 2,132 | 2,498 | 1,635 | 109.3 | 93.6 | 109.0 | 90.4 | 72.2 |
| 50 to 99 | 152 | 222 | 128 | 157 | 68 | 1,673 | 2,166 | 1,316 | 1,812 | 966 | 91.2 | 102.4 | 97.3 | 86.5 | 70.7 |
| 100 to 249 | 118 | 232 | 145 | 262 | 81 | 996 | 1,561 | 1,434 | 2,109 | 771 | 118.0 | 148.9 | 100.9 | 124.4 | 104.5 |
| 250 or More | 128 | 399 | 353 | 207 | 237 | 832 | 2,357 | 2,495 | 1,999 | 1,845 | 154.2 | 169.5 | 141.6 | 103.6 | 128.3 |
| **Weekly Operating Hours** | | | | | | | | | | | | | | | |
| Fewer than 40 | 43 | 83 | 24 | 48 | 28 | 977 | 2,330 | 658 | 1,903 | 994 | 44.5 | 35.6 | 37.1 | 25.4 | 28.5 |
| 40 to 48 | 113 | 282 | 122 | 162 | 94 | 1,549 | 3,147 | 1,983 | 3,017 | 1,926 | 73.1 | 89.6 | 61.5 | 53.6 | 49.1 |
| 49 to 60 | 222 | 400 | 206 | 201 | 150 | 3,094 | 4,123 | 2,380 | 3,589 | 2,537 | 71.8 | 97.0 | 86.6 | 56.0 | 59.2 |
| 61 to 84 | 168 | 260 | 177 | 212 | 107 | 1,586 | 2,887 | 1,897 | 2,557 | 1,407 | 106.1 | 90.2 | 93.2 | 82.8 | 76.1 |
| 85 to 167 | 199 | 218 | 174 | 180 | 118 | 1,552 | 1,665 | 1,386 | 1,384 | 1,105 | 128.2 | 131.0 | 125.7 | 130.0 | 107.0 |
| Open Continuously | 244 | 517 | 430 | 410 | 225 | 1,863 | 3,184 | 3,200 | 3,288 | 1,615 | 130.9 | 162.5 | 134.4 | 124.7 | 139.5 |
| **Ownership and Occupancy** | | | | | | | | | | | | | | | |
| Nongovernment Owned | 704 | 1,177 | 885 | 904 | 533 | 8,063 | 12,350 | 9,204 | 12,409 | 7,396 | 87.3 | 95.3 | 96.1 | 72.9 | 72.0 |
| Owner Occupied | 314 | 633 | 464 | 415 | 235 | 3,894 | 6,510 | 4,791 | 5,496 | 2,899 | 80.5 | 97.2 | 96.8 | 75.6 | 81.0 |
| Nonowner Occupied | 388 | 529 | 414 | 487 | 297 | 3,972 | 5,030 | 4,244 | 6,439 | 4,228 | 97.6 | 105.2 | 97.6 | 75.6 | 70.1 |
| Unoccupied | Q | Q | Q | Q | Q | Q | 810 | Q | 473 | Q | Q | Q | Q | Q | Q |
| Government Owned | 285 | 583 | 249 | 309 | 191 | 2,558 | 4,985 | 2,300 | 3,330 | 2,189 | 111.6 | 117.0 | 108.1 | 92.6 | 87.3 |
| Federal | Q | Q | Q | Q | Q | 167 | 1,135 | Q | 144 | Q | Q | Q | 169.3 | Q | Q |
| State | 115 | 101 | 80 | 153 | Q | 696 | 709 | 692 | 1,247 | Q | 165.0 | 142.6 | 115.5 | 123.0 | Q |
| Local | 151 | 290 | 97 | 142 | 120 | 1,695 | 3,141 | 1,182 | 1,939 | 1,642 | 89.4 | 92.3 | 81.8 | 73.3 | 73.2 |
| **Vacancy Status** | | | | | | | | | | | | | | | |
| Completely Vacant | Q | Q | Q | Q | Q | Q | 821 | Q | 491 | 303 | Q | Q | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 188 | 362 | 243 | 134 | 158 | 2,295 | 3,261 | 2,606 | 2,179 | 2,041 | 82.1 | 111.0 | 93.2 | 61.6 | 77.6 |
| Not At All Vacant | 882 | 1,547 | 986 | 1,249 | 719 | 8,690 | 14,697 | 9,609 | 14,882 | 8,830 | 101.4 | 105.3 | 102.6 | 83.9 | 81.4 |
| **Number of Establishments** | | | | | | | | | | | | | | | |
| One | 696 | 1,333 | 777 | 896 | 465 | 7,138 | 12,514 | 7,713 | 11,616 | 6,163 | 97.6 | 106.5 | 100.7 | 77.1 | 75.5 |
| 2 to 5 | 252 | 321 | 196 | 276 | 117 | 2,527 | 3,217 | 2,021 | 3,008 | 1,792 | 99.8 | 99.6 | 96.8 | 91.6 | 65.4 |
| 6 to 10 | 57 | 117 | 60 | 51 | 93 | 584 | 867 | 530 | 586 | 791 | 97.8 | 135.0 | 113.5 | 86.7 | 117.6 |
| 11 to 20 | Q | 80 | 64 | 72 | 68 | Q | 747 | 793 | 694 | 723 | Q | 106.9 | 80.5 | 104.3 | 94.7 |
| More than 20 | Q | Q | Q | 89 | 134 | 538 | 641 | 1,227 | 1,236 | 1,417 | Q | Q | Q | 72.4 | 94.7 |
| Currently Unoccupied | Q | Q | Q | Q | Q | Q | 821 | Q | 491 | 303 | Q | Q | Q | Q | Q |

## Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Predominant Exterior Wall Material** | | | | | | | | | | | | | | | |
| Brick, Stone or Stucco | 458 | 1,096 | 621 | 668 | 342 | 4,477 | 9,905 | 6,068 | 8,295 | 4,071 | 102.4 | 110.7 | 102.4 | 80.6 | 83.9 |
| Concrete (Block or Poured) | 216 | 222 | 213 | 191 | 132 | 2,023 | 2,599 | 1,840 | 2,428 | 1,942 | 106.6 | 85.4 | 115.9 | 78.8 | 68.0 |
| Concrete Panels | 109 | 160 | 121 | 124 | 154 | 895 | 1,252 | 1,219 | 1,431 | 1,762 | 121.7 | 127.4 | 99.2 | 86.9 | 87.1 |
| Siding or Shingles | 83 | 81 | 22 | 72 | Q | 1,294 | 1,319 | 443 | 849 | 214 | 64.3 | 61.6 | 49.0 | 84.3 | Q |
| Metal Panels | 102 | 112 | 84 | 134 | 32 | 1,665 | 1,492 | 1,287 | 2,394 | 1,074 | 61.0 | 74.8 | 65.2 | 56.1 | 29.5 |
| Window Glass | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | 351 | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | | | | | | | |
| Built-Up | 343 | 592 | 433 | 432 | 283 | 3,311 | 5,174 | 3,862 | 5,283 | 3,540 | 103.6 | 114.5 | 112.2 | 81.8 | 79.8 |
| Shingles (Not Wood) | 161 | 264 | 156 | 184 | 58 | 1,788 | 3,309 | 1,498 | 2,657 | 943 | 90.3 | 79.6 | 103.8 | 69.1 | 61.9 |
| Metal Surfacing | 146 | 128 | 88 | 184 | 84 | 2,396 | 2,091 | 1,620 | 3,390 | 2,448 | 60.9 | 61.2 | 54.4 | 54.2 | 34.3 |
| Synthetic or Rubber | 279 | 577 | 334 | 246 | 214 | 2,530 | 5,225 | 2,847 | 2,561 | 1,566 | 110.1 | 110.3 | 117.3 | 96.0 | 136.7 |
| Slate or Tile | Q | 50 | 40 | 72 | 30 | 145 | 478 | 451 | 972 | 416 | Q | 103.6 | 88.0 | 74.1 | 71.9 |
| Wooden Materials | Q | Q | Q | Q | Q | Q | 217 | Q | 254 | Q | Q | Q | Q | Q | Q |
| Concrete | Q | Q | Q | Q | Q | Q | Q | Q | 320 | 394 | Q | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | | | | | | | |
| Any Type of Renovation Since 1980 | 387 | 578 | 411 | 267 | 124 | 3,793 | 5,445 | 4,025 | 3,157 | 1,424 | 102.0 | 106.1 | 102.1 | 84.4 | 87.0 |
| Addition or Annex | 205 | 215 | 152 | 107 | 54 | 1,800 | 1,798 | 1,489 | 930 | 533 | 113.6 | 119.6 | 102.0 | 115.0 | 101.8 |
| Reduction In Floorspace | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Cosmetic Improvements | 307 | 418 | 304 | 196 | 93 | 2,780 | 3,719 | 3,124 | 2,449 | 1,047 | 110.5 | 112.3 | 97.2 | 80.0 | 88.7 |
| Wall or Roof Replacement | 182 | 233 | 211 | 97 | 54 | 1,723 | 2,178 | 2,280 | 1,316 | 573 | 105.7 | 107.1 | 92.5 | 73.7 | 94.5 |
| Interior Wall Re-Configuration | 219 | 285 | 224 | 125 | 58 | 1,983 | 2,300 | 2,297 | 1,388 | 550 | 110.4 | 124.1 | 97.4 | 89.8 | 106.2 |
| HVAC Equipment Upgrade | 262 | 345 | 292 | 187 | 72 | 2,415 | 3,076 | 2,660 | 1,879 | 738 | 108.4 | 112.0 | 109.6 | 99.4 | 97.2 |
| Lighting Upgrade | 274 | 339 | 263 | 148 | 61 | 2,492 | 3,124 | 2,353 | 1,707 | 600 | 110.1 | 108.6 | 111.7 | 86.8 | 101.1 |
| Window Replacement | 133 | 234 | 175 | 53 | Q | 1,384 | 2,142 | 1,938 | 650 | 241 | 96.0 | 109.1 | 90.1 | 81.3 | Q |
| Plumbing System Upgrade | 184 | 230 | 189 | 106 | Q | 1,616 | 1,939 | 1,948 | 1,204 | 437 | 113.5 | 118.7 | 97.1 | 88.1 | Q |
| Insulation Upgrade | 90 | 110 | 105 | 55 | Q | 907 | 1,181 | 1,079 | 583 | 265 | 99.5 | 93.3 | 97.6 | 93.8 | Q |
| Other Renovation | Q | Q | Q | Q | N | Q | Q | Q | Q | N | Q | Q | Q | Q | N |
| No Renovations Since 1980 | 282 | 536 | 306 | 239 | 119 | 3,217 | 5,893 | 3,291 | 4,329 | 1,983 | 87.5 | 91.0 | 92.9 | 55.3 | 59.8 |
| Building Newer than 1980 | 375 | 733 | 485 | 837 | 590 | 4,177 | 6,785 | 4,823 | 9,658 | 7,267 | 89.7 | 108.0 | 100.5 | 86.7 | 81.1 |
| **Energy Sources (more than one may apply)** | | | | | | | | | | | | | | | |
| Electricity | 1,086 | 1,929 | 1,243 | 1,386 | 879 | 11,300 | 18,549 | 12,374 | 17,064 | 10,894 | 96.1 | 104.0 | 100.4 | 81.2 | 80.7 |
| Natural Gas | 893 | 1,551 | 990 | 1,054 | 555 | 8,486 | 14,122 | 8,970 | 11,796 | 5,098 | 105.2 | 109.8 | 110.3 | 89.3 | 108.9 |
| Fuel Oil | 303 | 529 | 539 | 284 | 212 | 2,624 | 4,285 | 4,950 | 2,528 | 1,878 | 115.6 | 123.4 | 108.8 | 112.3 | 112.9 |
| District Heat | Q | Q | 228 | Q | Q | 825 | 1,917 | 1,349 | 1,025 | 460 | Q | Q | 168.7 | Q | Q |
| District Chilled Water | Q | Q | Q | Q | Q | 350 | 698 | 514 | 659 | 633 | Q | Q | Q | Q | Q |
| Propane | 118 | 214 | 71 | 123 | 57 | 1,607 | 2,036 | 1,102 | 1,403 | 928 | 73.7 | 105.2 | 64.7 | 87.8 | 61.9 |
| Other | 45 | 33 | Q | Q | Q | 483 | 378 | 268 | 223 | Q | 94.1 | 87.6 | Q | Q | Q |

## Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | | | | | | | |
| Electricity | 406 | 663 | 577 | 615 | 551 | 4,620 | 6,930 | 5,818 | 8,674 | 7,156 | 88.0 | 95.7 | 99.2 | 70.9 | 77.0 |
| Natural Gas | 818 | 1,335 | 757 | 903 | 330 | 7,970 | 12,658 | 7,002 | 10,350 | 3,128 | 102.7 | 105.5 | 108.1 | 87.3 | 105.4 |
| Fuel Oil | 149 | 161 | 242 | Q | Q | 1,563 | 1,687 | 2,418 | 385 | Q | 95.3 | 95.7 | Q | Q | Q |
| District Heat | Q | Q | 222 | Q | Q | 818 | 1,882 | 1,281 | 918 | 432 | Q | Q | 173.0 | Q | Q |
| Propane | 34 | 24 | Q | Q | Q | 849 | 650 | Q | 755 | Q | 39.5 | 36.7 | 37.7 | Q | Q |
| Other | Q | Q | Q | Q | Q | 339 | 208 | Q | Q | Q | 79.7 | Q | Q | Q | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | | | | | | | |
| Electricity | 171 | 266 | 230 | 376 | 450 | 1,984 | 3,236 | 2,859 | 5,863 | 6,274 | 86.4 | 82.1 | 80.3 | 64.2 | 71.8 |
| Natural Gas | 738 | 1,209 | 688 | 781 | 280 | 7,264 | 11,744 | 6,310 | 8,738 | 2,616 | 101.6 | 103.0 | 109.0 | 89.4 | 107.2 |
| Fuel Oil | 79 | 99 | Q | Q | Q | 962 | 1,283 | 1,587 | Q | Q | 82.3 | 77.3 | Q | Q | Q |
| District Heat | Q | Q | 212 | Q | Q | 752 | 1,771 | 1,231 | 883 | Q | Q | Q | 172.6 | Q | Q |
| Propane | 11 | 14 | Q | Q | Q | 394 | 492 | Q | 423 | Q | 29.1 | 29.2 | 35.4 | Q | Q |
| Other | Q | Q | Q | Q | N | Q | Q | Q | Q | N | Q | Q | Q | Q | N |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | | | | | | | |
| Electricity | 944 | 1,605 | 1,099 | 1,267 | 790 | 9,092 | 15,265 | 11,279 | 15,330 | 9,974 | 103.9 | 105.1 | 97.4 | 82.7 | 79.2 |
| Natural Gas | Q | Q | Q | Q | Q | Q | 358 | Q | Q | Q | Q | Q | Q | Q | Q |
| District Chilled Water | Q | Q | Q | Q | Q | 350 | 698 | 514 | 659 | 633 | Q | Q | Q | Q | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | | | | | | | |
| Electricity | 383 | 673 | 503 | 626 | 453 | 4,685 | 7,610 | 5,923 | 8,077 | 6,274 | 81.7 | 88.4 | 85.0 | 77.5 | 72.2 |
| Natural Gas | 663 | 1,067 | 661 | 797 | 416 | 6,152 | 9,299 | 5,421 | 8,047 | 3,393 | 107.8 | 114.7 | 121.9 | 99.1 | 122.5 |
| Fuel Oil | 48 | 53 | Q | Q | Q | 389 | 505 | 933 | Q | Q | 124.1 | 105.6 | Q | Q | Q |
| District Heat | Q | Q | 178 | Q | Q | 582 | 787 | 1,073 | 695 | Q | Q | Q | 165.9 | Q | Q |
| Propane | Q | Q | Q | Q | Q | 341 | 312 | Q | 260 | Q | Q | Q | 44.9 | Q | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | | | | | | | |
| Electricity | 256 | 513 | 279 | 288 | 243 | 2,123 | 4,210 | 2,235 | 2,472 | 2,120 | 120.6 | 121.8 | 125.0 | 116.3 | 114.8 |
| Natural Gas | 298 | 568 | 470 | 454 | 283 | 2,217 | 4,071 | 3,464 | 3,518 | 2,167 | 134.4 | 139.6 | 135.8 | 129.1 | 130.6 |
| Propane | 27 | Q | Q | Q | Q | 354 | 259 | Q | 387 | Q | 75.5 | Q | Q | Q | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | | | | | | | |
| Buildings with Space Heating | 986 | 1,750 | 1,127 | 1,168 | 674 | 10,109 | 16,720 | 11,239 | 13,965 | 7,995 | 97.5 | 104.7 | 100.2 | 83.7 | 84.3 |
| Buildings with Cooling | 906 | 1,553 | 1,106 | 1,178 | 721 | 8,550 | 14,524 | 10,946 | 13,977 | 8,943 | 105.9 | 106.9 | 101.1 | 84.3 | 80.7 |
| Buildings with Water Heating | 966 | 1,571 | 1,116 | 1,160 | 686 | 9,474 | 15,160 | 10,785 | 13,192 | 7,867 | 102.0 | 103.6 | 103.4 | 87.9 | 87.2 |
| Buildings with Cooking | 408 | 805 | 586 | 538 | 374 | 3,302 | 6,369 | 4,736 | 4,621 | 3,208 | 123.7 | 126.4 | 123.8 | 116.5 | 116.6 |
| Buildings with Manufacturing | 61 | 64 | 79 | 44 | Q | 855 | 729 | 772 | 608 | Q | 71.5 | 88.2 | 102.9 | 73.1 | Q |
| Buildings with Electricity Generation | 240 | 571 | 396 | 296 | 190 | 1,764 | 3,862 | 2,973 | 2,583 | 1,639 | 135.9 | 147.8 | 133.3 | 114.7 | 115.8 |
| **Percent of Floorspace Heated** | | | | | | | | | | | | | | | |
| Not Heated | 100 | 178 | 116 | 217 | 205 | 1,420 | 2,088 | 1,263 | 3,665 | 3,194 | 70.5 | 85.5 | 91.9 | 59.3 | 64.3 |
| 1 to 50 | 42 | 62 | 73 | 84 | 37 | 1,111 | 1,109 | 1,325 | 1,845 | 1,460 | 38.2 | 56.0 | 55.3 | 45.3 | 25.3 |
| 51 to 99 | 139 | 168 | 160 | 180 | 100 | 1,377 | 1,735 | 1,713 | 2,349 | 932 | 100.6 | 96.6 | 93.5 | 76.6 | 107.4 |
| 100 | 805 | 1,521 | 893 | 905 | 537 | 7,620 | 13,876 | 8,202 | 9,772 | 5,602 | 105.6 | 109.6 | 108.9 | 92.6 | 95.9 |

## Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Percent of Floorspace Cooled** | | | | | | | | | | | | | | | |
| Not Cooled | 180 | 376 | 137 | 208 | 158 | 2,979 | 4,283 | 1,557 | 3,654 | 2,245 | 60.5 | 87.8 | 87.7 | 56.8 | 70.4 |
| 1 to 50 | 270 | 325 | 218 | 166 | 49 | 3,133 | 4,657 | 3,422 | 3,480 | 1,906 | 86.0 | 69.7 | 63.6 | 47.6 | 25.5 |
| 51 to 99 | 255 | 425 | 375 | 233 | 126 | 2,327 | 3,568 | 3,297 | 2,803 | 1,215 | 109.5 | 119.0 | 113.6 | 83.2 | 103.3 |
| 100 | 381 | 804 | 514 | 779 | 547 | 3,089 | 6,300 | 4,227 | 7,693 | 5,822 | 123.5 | 127.6 | 121.6 | 101.3 | 94.0 |
| **Percent Lit When Open** | | | | | | | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 129 | 166 | 112 | 75 | 58 | 1,956 | 2,667 | 2,132 | 2,066 | 1,382 | 65.8 | 62.3 | 52.6 | 36.5 | 41.7 |
| 51 to 99 | 346 | 488 | 378 | 286 | 238 | 3,666 | 4,929 | 3,133 | 3,804 | 2,756 | 94.4 | 99.1 | 120.5 | 75.2 | 86.3 |
| 100 | 505 | 1,081 | 634 | 845 | 425 | 4,362 | 8,654 | 5,924 | 8,979 | 4,870 | 115.7 | 124.9 | 107.0 | 94.1 | 87.3 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | Q | Q | 597 | 1,064 | 282 | 808 | 459 | Q | Q | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | | | | | | | |
| Zero | 236 | 396 | 148 | 212 | 141 | 3,536 | 4,589 | 2,252 | 4,370 | 2,637 | 66.7 | 86.2 | 65.7 | 48.5 | 53.5 |
| 1 to 50 | 478 | 777 | 502 | 557 | 312 | 4,772 | 8,916 | 5,541 | 7,172 | 4,546 | 100.2 | 87.1 | 90.6 | 77.7 | 68.6 |
| 51 to 100 | Q | Q | Q | Q | 45 | 263 | 409 | 442 | 478 | 501 | Q | Q | Q | Q | 90.7 |
| Building Never Closed/ Electricity Not Used | 244 | 518 | 430 | 410 | 225 | 2,051 | 3,421 | 3,269 | 3,718 | 1,899 | 119.0 | 151.3 | 131.6 | 110.3 | 118.6 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | | | | | | | |
| Heat Pumps | 75 | 176 | 213 | 222 | 119 | 727 | 1,471 | 1,971 | 3,283 | 1,361 | 102.8 | 119.7 | 108.2 | 67.5 | 87.6 |
| Packaged Heat Pumps | Q | Q | 144 | 125 | 93 | 433 | 995 | 1,267 | 1,749 | 997 | Q | 112.6 | 113.5 | 71.2 | 93.4 |
| Split-System Heat Pumps | Q | Q | Q | 66 | 29 | Q | 227 | 686 | 1,140 | 419 | Q | Q | 112.4 | 58.0 | 69.1 |
| Individual Room Heat Pumps | Q | Q | 56 | 64 | Q | Q | 497 | 537 | 1,021 | 287 | Q | Q | 105.0 | 62.6 | Q |
| Furnaces | 370 | 512 | 207 | 286 | 118 | 4,587 | 6,411 | 2,648 | 4,313 | 1,658 | 80.6 | 79.9 | 78.0 | 66.4 | 71.1 |
| Individual Space Heaters | 236 | 314 | 247 | 166 | 60 | 3,014 | 3,582 | 2,524 | 2,569 | 856 | 78.4 | 87.7 | 98.0 | 64.5 | 70.2 |
| District Heat | Q | Q | 218 | Q | Q | 801 | 1,749 | 1,266 | 918 | 432 | Q | Q | 171.9 | Q | Q |
| Boilers | 435 | 740 | 533 | 381 | 155 | 4,060 | 6,835 | 4,693 | 3,334 | 1,500 | 107.1 | 108.3 | 113.5 | 114.3 | 103.6 |
| Packaged Heating Units | 239 | 441 | 326 | 435 | 287 | 2,126 | 3,708 | 3,204 | 5,619 | 3,365 | 112.5 | 119.0 | 101.6 | 77.5 | 85.4 |
| Other | 63 | 58 | Q | 25 | 48 | 816 | 674 | 497 | 525 | 750 | 77.4 | 85.4 | Q | 47.3 | 63.9 |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | | | | | | | |
| Residential-Type Central Air Conditioners | 197 | 273 | 219 | 152 | 83 | 1,971 | 3,078 | 2,207 | 2,056 | 1,723 | 99.9 | 88.7 | 99.1 | 73.8 | 48.4 |
| Heat Pumps | 76 | 182 | 221 | 233 | 125 | 739 | 1,542 | 1,998 | 3,398 | 1,365 | 102.8 | 118.1 | 110.5 | 68.6 | 91.7 |
| Packaged Heat Pumps | 50 | Q | 155 | 118 | 90 | 453 | 1,033 | 1,337 | 1,679 | 924 | 110.3 | 112.8 | 115.6 | 70.2 | 97.0 |
| Split-System Heat Pumps | Q | Q | Q | 70 | 31 | Q | 247 | 703 | 1,127 | 458 | Q | Q | 111.6 | 61.7 | 68.0 |
| Individual Room Heat Pumps | Q | Q | 55 | 78 | Q | 377 | 510 | 523 | 1,190 | 340 | Q | Q | 104.7 | 65.2 | Q |
| Individual Air Conditioners | 234 | 358 | 210 | 192 | 86 | 2,321 | 3,633 | 2,786 | 2,565 | 1,253 | 100.8 | 98.5 | 75.5 | 74.7 | 68.7 |
| District Chilled Water | Q | Q | Q | Q | Q | 350 | 698 | 514 | 659 | 633 | Q | Q | Q | Q | Q |
| Central Chillers | 200 | 433 | 348 | 326 | 225 | 1,604 | 2,658 | 2,473 | 2,695 | 2,205 | 124.7 | 162.8 | 140.7 | 120.9 | 101.8 |
| Packaged Air Conditioning Units | 505 | 858 | 588 | 600 | 312 | 4,565 | 7,740 | 6,076 | 7,703 | 3,884 | 110.6 | 110.8 | 96.8 | 77.8 | 80.4 |
| Swamp Coolers | 57 | 38 | Q | Q | Q | 515 | 468 | Q | 346 | Q | 111.7 | 81.6 | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | 336 | Q | Q | Q | Q | Q | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | | | | | | | |
| Heating | 263 | 481 | 273 | 229 | 122 | 3,263 | 4,981 | 3,204 | 3,195 | 1,759 | 80.5 | 96.5 | 85.1 | 71.7 | 69.4 |
| Cooling | 361 | 656 | 452 | 288 | 192 | 3,555 | 5,895 | 4,827 | 4,112 | 2,606 | 101.7 | 111.2 | 93.6 | 70.0 | 73.7 |

## Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Water Heating Equipment** | | | | | | | | | | | | | | | |
| Centralized System | 684 | 958 | 683 | 697 | 411 | 6,315 | 9,553 | 6,774 | 7,444 | 4,585 | 108.4 | 100.3 | 100.8 | 93.6 | 89.6 |
| Distributed System | 102 | 244 | 167 | 187 | 134 | 1,468 | 2,954 | 2,015 | 3,009 | 2,094 | 69.8 | 82.6 | 83.0 | 62.2 | 64.2 |
| Combination of Centralized and Distributed System | 180 | 369 | 266 | 276 | 141 | 1,691 | 2,654 | 1,996 | 2,739 | 1,187 | 106.1 | 139.0 | 133.2 | 100.7 | 118.4 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | | | | | | | |
| Incandescent | 674 | 1,156 | 854 | 770 | 461 | 7,016 | 10,308 | 8,192 | 7,939 | 5,073 | 96.1 | 112.2 | 104.3 | 97.0 | 90.9 |
| Standard Fluorescent | 965 | 1,696 | 1,107 | 1,178 | 698 | 9,783 | 16,090 | 10,871 | 14,316 | 8,627 | 98.7 | 105.4 | 101.8 | 82.3 | 80.9 |
| Compact Fluorescent | 529 | 882 | 745 | 693 | 358 | 4,667 | 6,835 | 6,292 | 6,439 | 3,339 | 113.5 | 129.1 | 118.5 | 107.6 | 107.3 |
| High Intensity Discharge | 395 | 738 | 439 | 343 | 226 | 3,955 | 6,149 | 4,385 | 3,863 | 2,292 | 99.9 | 120.0 | 100.0 | 88.9 | 98.7 |
| Halogen | 356 | 550 | 417 | 434 | 225 | 2,762 | 4,485 | 3,903 | 4,117 | 2,435 | 128.8 | 122.5 | 106.9 | 105.5 | 92.2 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | Q | 142.6 | 198.5 | Q |
| **Refrigeration Equipment (more than one may apply)[b]** | | | | | | | | | | | | | | | |
| Any Refrigeration | 887 | 1,526 | 1,030 | 1,102 | 669 | 8,673 | 14,438 | 9,893 | 12,329 | 7,640 | 102.2 | 105.7 | 104.1 | 89.4 | 87.6 |
| Commercial Refrigeration | 504 | 975 | 705 | 711 | 441 | 4,106 | 7,355 | 5,702 | 5,784 | 3,821 | 122.8 | 132.5 | 123.7 | 122.9 | 115.3 |
| Walk-In Units | 408 | 788 | 565 | 630 | 375 | 3,188 | 5,353 | 4,341 | 4,490 | 2,882 | 127.9 | 147.2 | 130.2 | 140.3 | 130.0 |
| Cases or Cabinets | 401 | 776 | 575 | 572 | 378 | 2,950 | 5,523 | 4,191 | 4,586 | 3,174 | 135.9 | 140.5 | 137.3 | 124.8 | 119.0 |
| Residential-Type Units | 632 | 1,076 | 689 | 635 | 435 | 6,713 | 10,957 | 7,367 | 8,479 | 5,369 | 94.1 | 98.2 | 93.6 | 74.8 | 80.9 |
| Vending Machines | 609 | 1,102 | 729 | 782 | 499 | 5,824 | 9,186 | 6,729 | 8,220 | 5,375 | 104.7 | 119.9 | 108.3 | 95.1 | 92.8 |
| No Refrigeration | 103 | 235 | 104 | 111 | 55 | 1,949 | 2,897 | 1,611 | 3,410 | 1,944 | 53.0 | 81.1 | 64.3 | 32.5 | 28.1 |
| **Office Equipment (more than one may apply)** | | | | | | | | | | | | | | | |
| Computers | 919 | 1,595 | 1,078 | 1,100 | 684 | 8,976 | 14,756 | 10,556 | 13,086 | 8,253 | 102.3 | 108.1 | 102.2 | 84.0 | 82.8 |
| With Flat Screen Monitors | 413 | 828 | 742 | 585 | 398 | 3,629 | 6,548 | 6,204 | 6,118 | 3,919 | 113.9 | 126.5 | 119.5 | 95.6 | 101.5 |
| Dedicated Servers | 592 | 1,099 | 851 | 762 | 456 | 5,673 | 9,426 | 7,813 | 8,157 | 5,269 | 104.4 | 116.6 | 108.9 | 93.4 | 86.6 |
| Laser Printers | 558 | 924 | 565 | 585 | 377 | 5,811 | 8,950 | 5,910 | 7,675 | 4,666 | 95.9 | 103.3 | 95.6 | 76.2 | 80.9 |
| Inkjet Printers | 599 | 861 | 696 | 706 | 440 | 5,523 | 7,781 | 6,220 | 7,556 | 5,130 | 108.5 | 110.7 | 111.8 | 93.4 | 85.8 |
| FAX Machines | 865 | 1,450 | 1,056 | 1,067 | 653 | 8,446 | 13,443 | 10,336 | 12,438 | 7,710 | 102.5 | 107.8 | 102.2 | 85.8 | 84.7 |
| Photocopiers | 744 | 1,312 | 935 | 919 | 555 | 7,181 | 12,244 | 9,222 | 10,780 | 6,828 | 103.6 | 107.1 | 101.4 | 85.3 | 81.3 |
| **Number of Computers** | | | | | | | | | | | | | | | |
| None | 71 | 165 | 55 | 113 | 40 | 1,646 | 2,579 | 948 | 2,652 | 1,331 | 43.2 | 64.1 | 58.1 | 42.6 | 30.1 |
| 1 to 4 | 201 | 324 | 134 | 220 | 136 | 2,242 | 3,537 | 1,801 | 3,206 | 1,608 | 89.6 | 91.6 | 74.5 | 68.6 | 84.8 |
| 5 to 9 | 123 | 157 | 96 | 95 | 74 | 1,392 | 1,946 | 1,206 | 1,572 | 1,063 | 88.3 | 80.5 | 80.0 | 60.7 | 69.8 |
| 10 to 19 | 106 | 153 | 90 | 106 | 59 | 1,057 | 1,724 | 1,032 | 1,568 | 1,228 | 100.4 | 89.0 | 87.2 | 67.6 | 48.4 |
| 20 to 49 | 126 | 186 | 154 | 168 | 71 | 1,239 | 2,045 | 1,441 | 1,729 | 960 | 102.1 | 91.2 | 107.0 | 97.4 | 74.5 |
| 50 to 99 | 84 | 119 | 93 | 148 | 69 | 740 | 1,124 | 1,078 | 1,547 | 887 | 113.1 | 105.9 | Q | 95.9 | 77.3 |
| 100 to 249 | 141 | 191 | 148 | 160 | 74 | 1,266 | 1,554 | 1,389 | 1,626 | 855 | 111.3 | 123.2 | 106.3 | 98.5 | 86.1 |
| 250 or More | 138 | 464 | 363 | 201 | 200 | 1,040 | 2,825 | 2,610 | 1,837 | 1,652 | 132.5 | 164.4 | 139.1 | 109.6 | 121.0 |
| **Number of Dedicated Servers** | | | | | | | | | | | | | | | |
| None | 398 | 662 | 283 | 450 | 268 | 4,949 | 7,909 | 3,691 | 7,581 | 4,315 | 80.3 | 83.7 | 76.6 | 59.4 | 62.0 |
| 1 to 4 | 433 | 600 | 471 | 492 | 237 | 4,305 | 6,249 | 4,591 | 5,624 | 3,346 | 100.6 | 96.0 | 102.6 | 87.6 | 70.9 |
| 5 to 9 | 35 | 117 | Q | 90 | Q | 516 | 980 | 1,078 | 884 | 405 | 67.7 | 119.5 | 112.8 | 101.3 | Q |
| 10 to 19 | 62 | 160 | 59 | 82 | Q | 412 | 965 | 455 | 724 | 472 | 150.2 | 165.6 | 129.6 | 113.0 | Q |
| 20 to 49 | Q | Q | Q | Q | Q | 252 | 428 | 586 | 604 | 713 | Q | Q | Q | Q | Q |
| 50 or More | Q | 155 | 119 | Q | Q | Q | 804 | 1,102 | 321 | Q | Q | 192.7 | 107.7 | Q | Q |

## Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings*** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |
| **Number of Photocopiers** | | | | | | | | | | | | | | | |
| None | 246 | 449 | 198 | 293 | 168 | 3,440 | 5,090 | 2,281 | 4,958 | 2,756 | 71.4 | 88.1 | 86.9 | 59.2 | 61.1 |
| One | 243 | 343 | 177 | 246 | 121 | 2,653 | 4,546 | 2,337 | 3,806 | 2,133 | 91.6 | 75.4 | 75.6 | 64.7 | 56.9 |
| 2 to 4 | 256 | 369 | 244 | 302 | 164 | 2,655 | 3,694 | 2,833 | 3,554 | 2,345 | 96.2 | 99.9 | 86.0 | 85.0 | 69.9 |
| 5 to 9 | 95 | 181 | 119 | 132 | 85 | 863 | 1,386 | 1,219 | 1,326 | 721 | 110.2 | 130.5 | 97.4 | 99.7 | 117.8 |
| 10 or More | 150 | 419 | 396 | 239 | 185 | 1,010 | 2,619 | 2,833 | 2,093 | 1,629 | 148.9 | 160.1 | 139.9 | 113.9 | 113.5 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | | | | | | | |
| Commercial Food Preparation | 408 | 804 | 586 | 538 | 374 | 3,302 | 6,358 | 4,736 | 4,620 | 3,208 | 123.7 | 126.4 | 123.8 | 116.5 | 116.6 |
| Activities with Large Amounts of Hot Water | 424 | 727 | 485 | 570 | 259 | 3,451 | 5,260 | 4,091 | 4,479 | 2,200 | 122.8 | 138.2 | 118.5 | 127.4 | 117.9 |
| Separate Computer Area | 414 | 877 | 683 | 580 | 340 | 3,713 | 7,143 | 5,988 | 6,266 | 3,763 | 111.6 | 122.8 | 114.0 | 92.6 | 90.5 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | | | | | | | |
| Variable Air-Volume System | 364 | 672 | 516 | 488 | 340 | 2,985 | 4,852 | 4,086 | 4,201 | 3,473 | 122.0 | 138.5 | 126.3 | 116.1 | 98.0 |
| Economizer Cycle | 447 | 780 | 591 | 489 | 282 | 3,804 | 5,533 | 4,736 | 4,630 | 2,406 | 117.5 | 141.0 | 124.8 | 105.6 | 117.1 |
| HVAC Maintenance | 829 | 1,595 | 1,017 | 1,064 | 665 | 8,045 | 14,309 | 9,597 | 11,542 | 7,670 | 103.0 | 111.5 | 105.9 | 92.2 | 86.7 |
| Energy Management and Control System (EMCS) | 282 | 495 | 424 | 327 | 254 | 2,438 | 3,834 | 3,284 | 3,546 | 2,528 | 115.8 | 129.2 | 129.2 | 92.1 | 100.4 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | | | | | | | |
| Multipaned Windows | 811 | 1,288 | 787 | 696 | 348 | 8,109 | 11,763 | 7,855 | 7,264 | 3,919 | 100.0 | 109.5 | 100.2 | 95.8 | 88.9 |
| Tinted Window Glass | 417 | 941 | 629 | 648 | 464 | 3,628 | 7,587 | 5,356 | 7,883 | 5,434 | 114.9 | 124.0 | 117.4 | 82.2 | 85.3 |
| Reflective Window Glass | 127 | 258 | 217 | 194 | 131 | 1,259 | 2,139 | 1,733 | 2,066 | 1,347 | 100.5 | 120.6 | 125.4 | 94.0 | 96.9 |
| External Overhangs or Awnings | 288 | 486 | 304 | 401 | 257 | 2,640 | 4,510 | 3,003 | 4,424 | 2,665 | 109.1 | 107.8 | 101.3 | 90.6 | 96.5 |
| Skylights or Atriums | 253 | 407 | 278 | 213 | 156 | 2,164 | 3,572 | 2,573 | 2,596 | 1,640 | 116.8 | 114.0 | 108.1 | 82.0 | 95.1 |
| Daylighting Sensors | 80 | Q | Q | 60 | Q | 574 | 837 | 413 | 618 | 426 | 138.6 | 147.4 | Q | 97.6 | Q |
| Specular Reflectors | 493 | 931 | 603 | 521 | 281 | 4,446 | 7,579 | 5,238 | 5,892 | 2,961 | 110.9 | 122.8 | 115.2 | 88.4 | 94.7 |
| Electronic Ballasts | 859 | 1,357 | 948 | 975 | 608 | 8,390 | 11,771 | 8,922 | 10,876 | 6,923 | 102.3 | 115.3 | 106.2 | 89.7 | 87.8 |
| Energy Management and Control System (EMCS) For Lighting | 84 | 148 | 134 | 77 | 95 | 756 | 1,249 | 881 | 899 | 997 | 111.8 | 118.8 | 151.8 | 85.4 | 95.5 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[b]** | | | | | | | | | | | | | | | |
| Heating | 635 | 1,096 | 843 | 736 | 431 | 6,995 | 11,651 | 8,469 | 10,227 | 5,380 | 90.7 | 94.1 | 99.5 | 71.9 | 80.1 |
| Cooling | 621 | 1,053 | 858 | 777 | 535 | 6,309 | 10,745 | 8,843 | 10,627 | 6,681 | 98.4 | 98.0 | 97.1 | 73.1 | 80.1 |
| Lighting | 711 | 1,203 | 662 | 771 | 471 | 7,959 | 12,889 | 7,802 | 11,312 | 7,025 | 89.3 | 93.3 | 84.9 | 68.2 | 67.1 |
| Office Equipment | 296 | 489 | 257 | 254 | 168 | 3,401 | 5,473 | 3,238 | 4,319 | 2,966 | 87.0 | 89.4 | 79.5 | 58.9 | 56.8 |

## Table C10. Consumption and Gross Energy Intensity by Climate Zone[a] for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | | | Total Floorspace of Buildings (million square feet) | | | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
| **All Buildings* .....** | 990 | 1,761 | 1,134 | 1,213 | 724 | 10,622 | 17,335 | 11,504 | 15,739 | 9,584 | 93.2 | 101.6 | 98.5 | 77.0 | 75.5 |

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] Climate zone (30-year average) definitions: Zone 1 = Under 2,000 CDD and more than 7,000 HDD; Zone 2 = Under 2,000 CDD and 5,500-7,000 HDD; Zone 3 = Under 2,000 CDD and 4,000-5,499 HDD; Zone 4 = Under 2,000 CDD and fewer than 4,000 HDD; Zone 5 = 2,000 CDD or more and fewer than 4,000 HDD. (See "Glossary" for definitions of CDD and HDD.)

[b] 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.

# Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Principal Building Activity** | | | | | | | | | |
| Education | 63 | 423 | 334 | 808 | 5,378 | 3,687 | 78.3 | 78.6 | 90.7 |
| Food Sales | 144 | Q | Q | 765 | 467 | Q | 188.5 | Q | Q |
| Food Service | 318 | 108 | Q | 986 | 664 | Q | 322.9 | 163.2 | Q |
| Health Care | 32 | 104 | 457 | 445 | 835 | 1,883 | 71.8 | 125.1 | 242.9 |
| Inpatient | N | Q | 436 | N | 182 | 1,723 | N | Q | 252.9 |
| Outpatient | 32 | 66 | Q | 445 | 652 | 160 | 71.8 | 100.5 | Q |
| Lodging | 29 | 207 | 273 | 260 | 2,274 | 2,563 | 111.0 | 91.2 | 106.7 |
| Retail (Other Than Mall) | 110 | 137 | 72 | 1,363 | 2,133 | 821 | 80.9 | 64.1 | 87.8 |
| Office | 171 | 412 | 551 | 2,320 | 4,602 | 5,286 | 73.5 | 89.5 | 104.2 |
| Public Assembly | 59 | 150 | Q | 854 | 1,851 | 1,233 | 69.5 | 80.8 | Q |
| Public Order and Safety | 22 | Q | Q | 231 | 390 | Q | 94.3 | Q | Q |
| Religious Worship | 54 | 100 | Q | 1,160 | 2,391 | Q | 46.5 | 41.8 | Q |
| Service | 120 | 144 | Q | 1,755 | 1,862 | Q | 68.4 | 77.2 | Q |
| Warehouse and Storage | 47 | 157 | 253 | 1,763 | 4,601 | 3,714 | 26.4 | 34.1 | 68.0 |
| Other | Q | 100 | Q | 215 | 601 | 922 | Q | 166.8 | Q |
| Vacant | Q | Q | Q | 447 | 1,211 | 909 | Q | Q | Q |
| **Year Constructed** | | | | | | | | | |
| Before 1920 | 77 | 162 | Q | 991 | 1,972 | 805 | 77.7 | 82.4 | Q |
| 1920 to 1945 | 130 | 175 | 314 | 1,623 | 2,466 | 2,781 | 80.2 | 71.2 | 113.0 |
| 1946 to 1959 | 114 | 220 | 231 | 1,503 | 3,283 | 2,258 | 76.1 | 66.9 | 102.4 |
| 1960 to 1969 | 133 | 350 | 254 | 1,555 | 4,177 | 2,369 | 85.4 | 83.7 | 107.3 |
| 1970 to 1979 | 206 | 367 | 450 | 2,297 | 4,735 | 3,740 | 89.8 | 77.5 | 120.3 |
| 1980 to 1989 | 182 | 342 | 509 | 1,870 | 4,211 | 4,251 | 97.4 | 81.3 | 119.8 |
| 1990 to 1999 | 274 | 401 | 423 | 2,533 | 5,798 | 4,029 | 108.0 | 69.2 | 105.0 |
| 2000 to 2003 | 71 | 191 | 180 | 1,001 | 2,618 | 1,915 | 70.8 | 72.8 | 93.8 |
| **Census Region and Division** | | | | | | | | | |
| Northeast | 220 | 458 | 594 | 2,149 | 5,303 | 5,454 | 102.4 | 86.3 | 108.8 |
| New England | 71 | 134 | Q | 719 | 1,416 | 829 | 98.4 | 94.8 | Q |
| Middle Atlantic | 149 | 323 | 505 | 1,430 | 3,887 | 4,624 | 104.4 | 83.2 | 109.2 |
| Midwest | 322 | 687 | 680 | 3,460 | 7,925 | 5,695 | 93.2 | 86.7 | 119.5 |
| East North Central | 219 | 451 | 583 | 1,816 | 5,170 | 4,608 | 120.5 | 87.3 | 126.5 |
| West North Central | 104 | 235 | 97 | 1,644 | 2,755 | 1,086 | 63.0 | 85.4 | 89.5 |
| South | 425 | 711 | 813 | 5,191 | 10,981 | 7,317 | 81.9 | 64.7 | 111.1 |
| South Atlantic | 219 | 361 | 484 | 2,593 | 5,382 | 4,282 | 84.5 | 67.1 | 112.9 |
| East South Central | 59 | 159 | 92 | 931 | 1,958 | 505 | 63.0 | 81.2 | 181.5 |
| West South Central | 147 | 190 | 237 | 1,667 | 3,640 | 2,530 | 88.4 | 52.3 | 93.8 |
| West | 220 | 353 | 338 | 2,574 | 5,052 | 3,684 | 85.5 | 69.9 | 91.8 |
| Mountain | 80 | 155 | 147 | 883 | 1,716 | 1,076 | 90.9 | 90.1 | 136.4 |
| Pacific | 140 | 198 | 191 | 1,692 | 3,335 | 2,608 | 82.7 | 59.5 | 73.4 |
| **Climate Zone: 30-Year Average** | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | |
| More than 7,000 HDD | 245 | 427 | 318 | 2,504 | 4,981 | 3,137 | 98.0 | 85.7 | 101.2 |
| 5,500-7,000 HDD | 312 | 673 | 775 | 3,306 | 7,971 | 6,058 | 94.4 | 84.5 | 128.0 |
| 4,000-5,499 HDD | 164 | 407 | 562 | 1,969 | 4,516 | 5,018 | 83.1 | 90.2 | 112.1 |
| Fewer than 4,000 HDD | 309 | 427 | 477 | 3,769 | 7,033 | 4,936 | 82.1 | 60.7 | 96.6 |
| 2,000 CDD or More and -- | | | | | | | | | |
| Fewer than 4,000 HDD | 157 | 274 | 293 | 1,826 | 4,759 | 2,999 | 86.1 | 57.5 | 97.6 |

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# Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Number of Floors** | | | | | | | | | |
| One | 828 | 802 | 307 | 9,342 | 12,643 | 3,996 | 88.7 | 63.4 | 76.9 |
| Two | 264 | 732 | 315 | 3,030 | 9,194 | 4,045 | 87.1 | 79.6 | 77.9 |
| Three | 81 | 322 | 216 | 846 | 4,227 | 2,428 | 96.2 | 76.3 | 88.8 |
| Four to Nine | Q | 340 | 983 | 155 | 3,078 | 6,851 | Q | 110.4 | 143.4 |
| Ten or More | N | Q | 604 | N | Q | 4,828 | N | Q | 125.1 |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | |
| Any Elevators | Q | 789 | 2,005 | 286 | 8,036 | 16,296 | Q | 98.2 | 123.0 |
| Number of Elevators | | | | | | | | | |
| One | Q | 482 | 218 | 286 | 5,190 | 2,745 | Q | 92.8 | 79.4 |
| Two to Five | N | 303 | 855 | N | 2,799 | 7,329 | N | 108.1 | 116.6 |
| Six or More | N | Q | 932 | N | Q | 6,222 | N | Q | 149.8 |
| Any Escalators | Q | Q | 275 | Q | Q | 2,257 | Q | Q | 121.9 |
| **Number of Workers (main shift)** | | | | | | | | | |
| Fewer than 5 | 496 | 194 | Q | 7,981 | 5,932 | 1,579 | 62.2 | 32.7 | Q |
| 5 to 9 | 278 | 175 | Q | 2,637 | 3,202 | Q | 105.6 | 54.7 | Q |
| 10 to 19 | 248 | 284 | Q | 1,798 | 4,940 | 1,066 | 138.0 | 57.6 | Q |
| 20 to 49 | 136 | 751 | 163 | 844 | 7,898 | 2,247 | 160.5 | 95.1 | 72.7 |
| 50 to 99 | Q | 437 | 275 | Q | 4,492 | 3,368 | Q | 97.3 | 81.6 |
| 100 to 249 | Q | 313 | 511 | Q | 2,377 | 4,455 | Q | 131.7 | 114.7 |
| 250 or More | N | 53 | 1,271 | N | 419 | 9,109 | N | 127.4 | 139.6 |
| **Weekly Operating Hours** | | | | | | | | | |
| Fewer than 40 | 117 | 79 | Q | 3,029 | 2,790 | 1,044 | 38.6 | 28.4 | Q |
| 40 to 48 | 210 | 378 | 185 | 3,415 | 6,136 | 2,071 | 61.5 | 61.6 | 89.5 |
| 49 to 60 | 221 | 518 | 440 | 2,909 | 8,031 | 4,783 | 76.1 | 64.5 | 92.0 |
| 61 to 84 | 221 | 437 | 266 | 1,578 | 5,209 | 3,547 | 139.9 | 84.0 | 75.0 |
| 85 to 167 | 266 | 330 | 293 | 1,222 | 2,938 | 2,932 | 217.6 | 112.4 | 100.0 |
| Open Continuously | 153 | 465 | 1,209 | 1,221 | 4,156 | 7,771 | 125.0 | 111.9 | 155.5 |
| **Ownership and Occupancy** | | | | | | | | | |
| Nongovernment Owned | 1,062 | 1,580 | 1,561 | 11,871 | 22,176 | 15,374 | 89.5 | 71.2 | 101.5 |
| Owner Occupied | 449 | 736 | 875 | 5,540 | 10,688 | 7,363 | 81.1 | 68.9 | 118.8 |
| Nonowner Occupied | 609 | 834 | 672 | 5,953 | 10,621 | 7,339 | 102.3 | 78.5 | 91.5 |
| Unoccupied | Q | Q | Q | 377 | 867 | Q | Q | Q | Q |
| Government Owned | 125 | 628 | 864 | 1,504 | 7,084 | 6,775 | 83.3 | 88.7 | 127.5 |
| Federal | Q | Q | 255 | Q | 402 | 1,471 | Q | Q | 173.1 |
| State | Q | 199 | 278 | 302 | 1,755 | 1,751 | Q | 113.3 | 158.8 |
| Local | 83 | 386 | 331 | 1,119 | 4,927 | 3,553 | 74.5 | 78.4 | 93.1 |
| **Vacancy Status** | | | | | | | | | |
| Completely Vacant | Q | Q | Q | 405 | 918 | 838 | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 83 | 350 | 652 | 1,443 | 4,519 | 6,420 | 57.8 | 77.5 | 101.6 |
| Not At All Vacant | 1,099 | 1,833 | 1,749 | 11,484 | 23,530 | 14,820 | 95.7 | 77.9 | 118.0 |

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# Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Number of Establishments** | | | | | | | | | |
| One | 1,035 | 1,657 | 1,474 | 10,917 | 21,123 | 13,104 | 94.8 | 78.5 | 112.5 |
| 2 to 5 | 140 | 390 | 462 | 1,947 | 5,307 | 3,705 | 71.9 | 73.5 | 124.7 |
| 6 to 10 | Q | 87 | 121 | Q | 1,011 | 872 | Q | 86.5 | 139.3 |
| 11 to 20 | Q | 44 | 108 | Q | 624 | 1,325 | Q | 70.4 | 81.2 |
| More than 20 | Q | Q | 238 | Q | 277 | 2,305 | Q | Q | 103.1 |
| Currently Unoccupied | Q | Q | Q | 405 | 918 | 838 | Q | Q | Q |
| **Predominant Exterior Wall Material** | | | | | | | | | |
| Brick, Stone or Stucco | 652 | 1,263 | 1,271 | 5,838 | 15,926 | 11,052 | 111.7 | 79.3 | 115.0 |
| Concrete (Block or Poured) | 201 | 430 | 343 | 2,074 | 5,357 | 3,402 | 96.9 | 80.3 | 100.8 |
| Concrete Panels | Q | 166 | 468 | 275 | 2,014 | 4,270 | Q | 82.3 | 109.5 |
| Siding or Shingles | 173 | 80 | Q | 2,274 | 1,555 | Q | 76.0 | 51.6 | Q |
| Metal Panels | 108 | 223 | 131 | 2,668 | 3,819 | 1,425 | 40.5 | 58.5 | 92.3 |
| Window Glass | Q | Q | 74 | Q | 231 | 762 | Q | Q | 97.3 |
| Other | Q | Q | Q | Q | 229 | 770 | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | |
| Built-Up | 348 | 783 | 953 | 2,725 | 9,595 | 8,850 | 127.5 | 81.6 | 107.7 |
| Shingles (Not Wood) | 322 | 357 | Q | 3,901 | 4,888 | 1,406 | 82.5 | 72.9 | Q |
| Metal Surfacing | 186 | 319 | 124 | 4,021 | 6,356 | 1,567 | 46.3 | 50.2 | 79.3 |
| Synthetic or Rubber | 205 | 553 | 891 | 1,352 | 5,667 | 7,710 | 151.3 | 97.6 | 115.6 |
| Slate or Tile | 76 | 99 | Q | 776 | 1,296 | 391 | 97.3 | 76.0 | Q |
| Wooden Materials | 24 | Q | Q | 336 | 403 | Q | 72.6 | Q | Q |
| Concrete | Q | Q | Q | 158 | 455 | 1,618 | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | |
| Any Type of Renovation Since 1980 | 280 | 699 | 788 | 2,924 | 8,005 | 6,916 | 95.7 | 87.3 | 113.9 |
| Addition or Annex | 75 | 260 | 398 | 668 | 2,805 | 3,079 | 112.9 | 92.6 | 129.2 |
| Reduction In Floorspace | Q | Q | Q | Q | 420 | 550 | Q | Q | Q |
| Cosmetic Improvements | 201 | 515 | 601 | 2,107 | 5,906 | 5,105 | 95.6 | 87.2 | 117.7 |
| Wall or Roof Replacement | 99 | 262 | 416 | 1,177 | 2,989 | 3,904 | 84.2 | 87.8 | 106.5 |
| Interior Wall Re-Configuration | 109 | 287 | 515 | 1,181 | 3,222 | 4,115 | 92.2 | 89.1 | 125.2 |
| HVAC Equipment Upgrade | 114 | 431 | 611 | 1,175 | 4,662 | 4,931 | 97.4 | 92.5 | 123.9 |
| Lighting Upgrade | 103 | 426 | 556 | 1,204 | 4,417 | 4,654 | 85.9 | 96.3 | 119.5 |
| Window Replacement | 77 | 250 | 286 | 873 | 2,847 | 2,633 | 88.0 | 87.9 | 108.5 |
| Plumbing System Upgrade | 87 | 245 | 416 | 890 | 2,735 | 3,519 | 97.4 | 89.6 | 118.3 |
| Insulation Upgrade | 46 | 150 | 184 | 640 | 1,655 | 1,719 | 72.6 | 90.6 | 107.1 |
| Other Renovation | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No Renovations Since 1980 | 381 | 576 | 525 | 5,047 | 8,629 | 5,038 | 75.5 | 66.7 | 104.2 |
| Building Newer than 1980 | 527 | 934 | 1,112 | 5,404 | 12,627 | 10,195 | 97.5 | 74.0 | 109.1 |

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## Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 1,187 | 2,208 | 2,425 | 12,543 | 28,786 | 21,977 | 94.7 | 76.7 | 110.3 |
| Natural Gas | 852 | 1,736 | 1,903 | 6,776 | 19,761 | 16,931 | 125.7 | 87.9 | 112.4 |
| Fuel Oil | 123 | 352 | 1,285 | 1,317 | 3,532 | 10,308 | 93.6 | 99.6 | 124.7 |
| District Heat | Q | 239 | 763 | Q | 1,232 | 4,111 | Q | 194.3 | 185.6 |
| District Chilled Water | Q | 121 | 411 | Q | 694 | 2,111 | Q | 174.0 | 194.5 |
| Propane | 102 | 155 | 327 | 1,531 | 2,577 | 2,968 | 66.5 | 60.3 | 110.3 |
| Other | 17 | 59 | Q | 429 | 583 | 388 | 39.6 | 101.1 | Q |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 424 | 961 | 989 | 4,927 | 13,154 | 10,519 | 86.0 | 73.0 | 94.0 |
| Natural Gas | 745 | 1,511 | 1,425 | 6,187 | 17,733 | 13,038 | 120.5 | 85.2 | 109.3 |
| Fuel Oil | 108 | 128 | 355 | 1,183 | 1,760 | 3,045 | 91.1 | 72.4 | 116.7 |
| District Heat | Q | 235 | 744 | Q | 1,173 | 3,924 | Q | 200.3 | 189.7 |
| Propane | 58 | 49 | Q | 1,194 | 1,305 | Q | 48.5 | 37.8 | Q |
| Other | 13 | 32 | Q | 410 | 347 | Q | 32.0 | 91.7 | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | |
| Electricity | 289 | 492 | 308 | 3,465 | 7,876 | 4,656 | 83.3 | 62.5 | 66.2 |
| Natural Gas | 681 | 1,338 | 1,261 | 5,741 | 15,927 | 11,302 | 118.6 | 84.0 | 111.6 |
| Fuel Oil | 94 | 89 | Q | 913 | 1,268 | 1,637 | 103.3 | 70.5 | Q |
| District Heat | Q | 226 | 710 | Q | 1,112 | 3,695 | Q | 203.6 | 192.2 |
| Propane | 45 | 24 | Q | 1,009 | 858 | Q | 44.9 | 27.5 | Q |
| Other | Q | Q | Q | 226 | Q | Q | Q | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 1,073 | 2,013 | 1,935 | 10,360 | 25,385 | 18,575 | 103.6 | 79.3 | 104.2 |
| Natural Gas | Q | Q | 118 | Q | 298 | 683 | Q | Q | 173.6 |
| District Chilled Water | Q | 121 | 411 | Q | 694 | 2,111 | Q | 174.0 | 194.5 |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 463 | 893 | 788 | 5,669 | 12,392 | 9,430 | 81.7 | 72.1 | 83.6 |
| Natural Gas | 593 | 1,277 | 1,336 | 3,995 | 13,529 | 11,296 | 148.4 | 94.4 | 118.3 |
| Fuel Oil | Q | 48 | 112 | 285 | 694 | 900 | Q | 69.1 | Q |
| District Heat | Q | Q | 465 | Q | 555 | 2,507 | Q | Q | 185.4 |
| Propane | Q | 39 | Q | 374 | 853 | Q | Q | 45.2 | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 215 | 444 | 920 | 1,114 | 4,754 | 7,292 | 193.1 | 93.5 | 126.1 |
| Natural Gas | 333 | 537 | 1,203 | 1,190 | 4,975 | 9,273 | 280.3 | 107.9 | 129.8 |
| Propane | Q | 43 | Q | 295 | 714 | Q | Q | 60.4 | Q |

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## Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Energy End Uses (more than one may apply)** | | | | | | | | | |
| Buildings with Space Heating | 1,130 | 2,181 | 2,394 | 11,454 | 27,165 | 21,408 | 98.6 | 80.3 | 111.8 |
| Buildings with Cooling | 1,079 | 2,101 | 2,284 | 10,416 | 26,030 | 20,495 | 103.6 | 80.7 | 111.4 |
| Buildings with Water Heating | 1,093 | 2,126 | 2,280 | 10,107 | 25,708 | 20,663 | 108.1 | 82.7 | 110.3 |
| Buildings with Cooking | 452 | 769 | 1,492 | 2,133 | 8,041 | 12,063 | 211.8 | 95.6 | 123.7 |
| Buildings with Manufacturing | 21 | 109 | 124 | 330 | 1,326 | 1,482 | 64.8 | 81.9 | 83.9 |
| Buildings with Electricity Generation | Q | 388 | 1,284 | 199 | 3,074 | 9,547 | Q | 126.3 | 134.5 |
| **Percent of Floorspace Heated** | | | | | | | | | |
| Not Heated | 58 | 27 | Q | 1,920 | 2,095 | 740 | 30.0 | 13.0 | Q |
| 1 to 50 | 92 | 150 | 57 | 1,627 | 3,499 | 1,723 | 56.3 | 42.9 | 32.8 |
| 51 to 99 | 153 | 246 | 348 | 1,455 | 3,286 | 3,365 | 104.9 | 74.8 | 103.4 |
| 100 | 886 | 1,785 | 1,990 | 8,372 | 20,380 | 16,320 | 105.8 | 87.6 | 121.9 |
| **Percent of Floorspace Cooled** | | | | | | | | | |
| Not Cooled | 108 | 107 | Q | 2,959 | 3,231 | 1,654 | 36.6 | 33.1 | Q |
| 1 to 50 | 205 | 534 | 287 | 2,909 | 8,811 | 4,877 | 70.3 | 60.6 | 58.9 |
| 51 to 99 | 215 | 469 | 729 | 1,775 | 5,265 | 6,170 | 120.9 | 89.2 | 118.1 |
| 100 | 660 | 1,098 | 1,268 | 5,731 | 11,953 | 9,447 | 115.2 | 91.8 | 134.2 |
| **Percent Lit When Open** | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 155 | 260 | 125 | 2,495 | 5,662 | 2,046 | 62.2 | 45.8 | 61.3 |
| 51 to 99 | 279 | 680 | 777 | 3,154 | 8,556 | 6,579 | 88.5 | 79.4 | 118.1 |
| 100 | 740 | 1,251 | 1,499 | 6,390 | 13,779 | 12,620 | 115.8 | 90.8 | 118.8 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | 1,186 | 1,130 | 893 | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | |
| Zero | 382 | 476 | 274 | 5,839 | 8,570 | 2,976 | 65.4 | 55.5 | 92.1 |
| 1 to 50 | 608 | 1,173 | 845 | 5,314 | 15,218 | 10,415 | 114.5 | 77.1 | 81.1 |
| 51 to 100 | 44 | 94 | 97 | 361 | 891 | 841 | 122.3 | 105.5 | 115.3 |
| Building Never Closed/ Electricity Not Used | 153 | 465 | 1,209 | 1,860 | 4,581 | 7,916 | 82.2 | 101.6 | 152.7 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | |
| Heat Pumps | 91 | 327 | 387 | 1,147 | 4,074 | 3,593 | 79.4 | 80.2 | 107.7 |
| Packaged Heat Pumps | 62 | 192 | 269 | 686 | 2,402 | 2,354 | 89.8 | 79.8 | 114.4 |
| Split-System Heat Pumps | 26 | 98 | Q | 420 | 1,293 | 868 | 60.8 | 76.1 | 85.5 |
| Individual Room Heat Pumps | Q | 98 | 151 | Q | 1,113 | 1,509 | Q | 88.2 | 100.2 |
| Furnaces | 530 | 624 | 340 | 5,794 | 9,501 | 4,320 | 91.4 | 65.7 | 78.6 |
| Individual Space Heaters | 158 | 445 | 420 | 2,329 | 5,696 | 4,520 | 67.7 | 78.2 | 93.0 |
| District Heat | Q | 233 | 739 | Q | 1,162 | 3,903 | Q | 200.1 | 189.2 |
| Boilers | 156 | 821 | 1,267 | 1,234 | 8,490 | 10,699 | 126.2 | 96.7 | 118.4 |
| Packaged Heating Units | 365 | 730 | 634 | 2,758 | 8,541 | 6,722 | 132.2 | 85.4 | 94.3 |
| Other | 34 | 95 | 102 | 549 | 1,325 | 1,388 | 62.2 | 71.5 | 73.3 |

# Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | |
| Residential-Type Central Air Conditioners | 274 | 385 | 265 | 3,091 | 5,245 | 2,699 | 88.6 | 73.4 | 98.1 |
| Heat Pumps | 105 | 329 | 403 | 1,239 | 4,036 | 3,766 | 85.1 | 81.5 | 106.9 |
| Packaged Heat Pumps | 70 | 194 | 264 | 761 | 2,370 | 2,295 | 92.5 | 82.0 | 115.0 |
| Split-System Heat Pumps | 31 | 99 | Q | 436 | 1,289 | 880 | 70.9 | 76.7 | 84.5 |
| Individual Room Heat Pumps | Q | 97 | 175 | Q | 1,096 | 1,774 | Q | 88.5 | 98.6 |
| Individual Air Conditioners | 155 | 454 | 471 | 1,984 | 5,999 | 4,576 | 77.9 | 75.7 | 102.9 |
| District Chilled Water | Q | 121 | 411 | Q | 694 | 2,111 | Q | 174.0 | 194.5 |
| Central Chillers | Q | 350 | 1,173 | Q | 2,907 | 8,666 | Q | 120.3 | 135.4 |
| Packaged Air Conditioning Units | 597 | 1,179 | 1,087 | 4,698 | 14,256 | 11,016 | 127.0 | 82.7 | 98.7 |
| Swamp Coolers | 46 | 76 | Q | 385 | 776 | 399 | 119.1 | 98.1 | Q |
| Other | Q | Q | Q | Q | 445 | 700 | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | |
| Heating | 312 | 660 | 395 | 3,379 | 8,613 | 4,411 | 92.3 | 76.7 | 89.6 |
| Cooling | 402 | 835 | 712 | 3,903 | 10,012 | 7,080 | 102.9 | 83.4 | 100.5 |
| **Water Heating Equipment** | | | | | | | | | |
| Centralized System | 876 | 1,395 | 1,161 | 7,606 | 16,799 | 10,266 | 115.2 | 83.0 | 113.1 |
| Distributed System | 190 | 365 | 281 | 2,263 | 5,582 | 3,695 | 83.8 | 65.4 | 75.9 |
| Combination of Centralized and Distributed System | Q | 365 | 838 | 239 | 3,327 | 6,702 | Q | 109.8 | 125.1 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | |
| Incandescent | 614 | 1,457 | 1,846 | 5,979 | 16,896 | 15,653 | 102.7 | 86.2 | 117.9 |
| Standard Fluorescent | 1,125 | 2,138 | 2,381 | 11,305 | 27,126 | 21,256 | 99.5 | 78.8 | 112.0 |
| Compact Fluorescent | 316 | 1,078 | 1,814 | 2,232 | 10,936 | 14,403 | 141.5 | 98.5 | 126.0 |
| High Intensity Discharge | 127 | 670 | 1,344 | 998 | 7,559 | 12,086 | 127.5 | 88.7 | 111.2 |
| Halogen | 211 | 624 | 1,147 | 1,385 | 6,585 | 9,734 | 152.2 | 94.8 | 117.8 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | |
| Any Refrigeration | 1,001 | 1,955 | 2,257 | 9,071 | 23,752 | 20,150 | 110.4 | 82.3 | 112.0 |
| Commercial Refrigeration | 561 | 976 | 1,799 | 2,716 | 9,350 | 14,702 | 206.5 | 104.4 | 122.3 |
| Walk-In Units | 466 | 706 | 1,594 | 1,824 | 5,937 | 12,493 | 255.5 | 118.8 | 127.6 |
| Cases or Cabinets | 485 | 767 | 1,450 | 2,216 | 7,057 | 11,151 | 219.0 | 108.7 | 130.0 |
| Residential-Type Units | 526 | 1,339 | 1,601 | 6,783 | 17,774 | 14,328 | 77.5 | 75.4 | 111.8 |
| Vending Machines | 248 | 1,411 | 2,061 | 2,237 | 15,323 | 17,775 | 110.9 | 92.1 | 116.0 |
| No Refrigeration | 186 | 253 | Q | 4,303 | 5,508 | 1,998 | 43.3 | 46.0 | Q |

# Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Office Equipment (more than one may apply)** | | | | | | | | | |
| Computers | 920 | 2,120 | 2,335 | 8,727 | 26,064 | 20,837 | 105.4 | 81.3 | 112.1 |
| With Flat Screen Monitors | 238 | 983 | 1,745 | 2,173 | 10,178 | 14,065 | 109.6 | 96.6 | 124.0 |
| Dedicated Servers | 328 | 1,406 | 2,027 | 2,790 | 15,713 | 17,835 | 117.4 | 89.5 | 113.6 |
| Laser Printers | 577 | 1,244 | 1,188 | 5,598 | 16,584 | 10,830 | 103.0 | 75.0 | 109.7 |
| Inkjet Printers | 402 | 1,292 | 1,608 | 3,821 | 14,731 | 13,658 | 105.2 | 87.7 | 117.7 |
| FAX Machines | 806 | 2,004 | 2,282 | 7,520 | 24,274 | 20,580 | 107.2 | 82.5 | 110.9 |
| Photocopiers | 422 | 1,827 | 2,217 | 5,167 | 21,434 | 19,657 | 81.7 | 85.2 | 112.8 |
| **Number of Computers** | | | | | | | | | |
| None | 267 | 88 | Q | 4,647 | 3,197 | 1,312 | 57.5 | 27.5 | Q |
| 1 to 4 | 564 | 345 | Q | 5,366 | 5,844 | 1,185 | 105.2 | 59.1 | Q |
| 5 to 9 | 193 | 300 | Q | 1,725 | 4,428 | 1,027 | 111.9 | 67.8 | Q |
| 10 to 19 | 93 | 324 | 98 | 1,031 | 4,055 | 1,524 | 89.8 | 80.0 | 64.3 |
| 20 to 49 | 64 | 449 | 194 | 569 | 4,639 | 2,207 | 112.0 | 96.8 | 88.0 |
| 50 to 99 | Q | 296 | 212 | Q | 3,297 | 2,045 | Q | 89.8 | 103.9 |
| 100 to 249 | Q | 324 | 388 | Q | 3,165 | 3,522 | Q | 102.3 | 110.1 |
| 250 or More | N | 81 | 1,285 | N | 636 | 9,327 | N | 127.8 | 137.8 |
| **Number of Dedicated Servers** | | | | | | | | | |
| None | 860 | 802 | 398 | 10,585 | 13,547 | 4,314 | 81.2 | 59.2 | 92.2 |
| 1 to 4 | 309 | 1,103 | 822 | 2,667 | 13,017 | 8,432 | 115.7 | 84.7 | 97.5 |
| 5 to 9 | Q | 153 | 238 | Q | 1,491 | 2,305 | Q | 102.4 | 103.4 |
| 10 to 19 | Q | 88 | 340 | Q | 603 | 2,370 | Q | 145.5 | 143.3 |
| 20 to 49 | N | Q | 257 | N | 482 | 2,101 | N | Q | 122.2 |
| 50 or More | N | Q | 370 | N | Q | 2,627 | N | Q | 140.9 |
| **Number of Photocopiers** | | | | | | | | | |
| None | 765 | 381 | 208 | 8,208 | 7,827 | 2,492 | 93.3 | 48.7 | 83.4 |
| One | 301 | 658 | 171 | 3,817 | 8,993 | 2,665 | 78.8 | 73.2 | 64.1 |
| 2 to 4 | 105 | 791 | 438 | 1,257 | 8,908 | 4,917 | 83.4 | 88.8 | 89.1 |
| 5 to 9 | Q | 223 | 372 | Q | 2,032 | 3,390 | Q | 109.9 | 109.8 |
| 10 or More | N | 154 | 1,236 | N | 1,500 | 8,685 | N | 102.6 | 142.3 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | |
| Commercial Food Preparation | 452 | 767 | 1,492 | 2,131 | 8,029 | 12,063 | 212.0 | 95.6 | 123.7 |
| Activities with Large Amounts of Hot Water | 303 | 757 | 1,405 | 1,477 | 7,554 | 10,451 | 204.9 | 100.3 | 134.5 |
| Separate Computer Area | 87 | 959 | 1,849 | 969 | 10,433 | 15,471 | 89.8 | 92.0 | 119.5 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | |
| Variable Air-Volume System | 162 | 690 | 1,529 | 1,048 | 6,736 | 11,813 | 154.5 | 102.4 | 129.4 |
| Economizer Cycle | 168 | 812 | 1,609 | 1,102 | 7,217 | 12,789 | 152.2 | 112.6 | 125.8 |
| HVAC Maintenance | 837 | 1,939 | 2,394 | 7,133 | 23,011 | 21,019 | 117.4 | 84.3 | 113.9 |
| Energy Management and Control System (EMCS) | 53 | 523 | 1,206 | 364 | 4,973 | 10,294 | 146.3 | 105.2 | 117.1 |

## Table C11. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/ square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet | 1,001 to 10,000 Square Feet | 10,001 to 100,000 Square Feet | Over 100,000 Square Feet |
| **All Buildings*** | 1,188 | 2,208 | 2,425 | 13,374 | 29,260 | 22,149 | 88.8 | 75.5 | 109.5 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | |
| Multipaned Windows | 677 | 1,478 | 1,774 | 6,243 | 17,321 | 15,346 | 108.4 | 85.3 | 115.6 |
| Tinted Window Glass | 406 | 980 | 1,712 | 3,791 | 12,179 | 13,917 | 107.0 | 80.5 | 123.0 |
| Reflective Window Glass | 75 | 285 | 567 | 697 | 2,932 | 4,915 | 107.1 | 97.3 | 115.3 |
| External Overhangs or Awnings | 436 | 643 | 658 | 3,655 | 7,868 | 5,720 | 119.3 | 81.7 | 115.0 |
| Skylights or Atriums | 77 | 355 | 875 | 758 | 4,618 | 7,170 | 101.2 | 76.9 | 122.0 |
| Daylighting Sensors | Q | 77 | 272 | 216 | 789 | 1,864 | Q | 97.4 | 145.8 |
| Specular Reflectors | 241 | 923 | 1,665 | 2,184 | 10,058 | 13,875 | 110.2 | 91.8 | 120.0 |
| Electronic Ballasts | 762 | 1,750 | 2,234 | 7,346 | 20,431 | 19,105 | 103.7 | 85.6 | 117.0 |
| Energy Management and Control System (EMCS) For Lighting | Q | 131 | 393 | Q | 1,172 | 3,537 | Q | 112.1 | 111.1 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | |
| Heating | 740 | 1,471 | 1,529 | 8,161 | 19,476 | 15,084 | 90.7 | 75.5 | 101.4 |
| Cooling | 742 | 1,500 | 1,602 | 7,797 | 19,738 | 15,670 | 95.1 | 76.0 | 102.3 |
| Lighting | 995 | 1,668 | 1,155 | 10,689 | 23,175 | 13,123 | 93.1 | 72.0 | 88.0 |
| Office Equipment | 378 | 672 | 416 | 4,483 | 10,317 | 4,597 | 84.3 | 65.1 | 90.4 |

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.

# Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Building Floorspace (Square Feet)** | | | | | | | | | |
| 1,001 to 5,000 | 191 | 290 | 190 | 2,146 | 2,805 | 1,838 | 89.1 | 103.5 | 103.5 |
| 5,001 to 10,000 | 131 | 231 | 154 | 1,972 | 2,917 | 1,696 | 66.2 | 79.2 | 91.0 |
| 10,001 to 25,000 | 235 | 351 | 191 | 3,213 | 4,976 | 3,346 | 73.1 | 70.5 | 57.0 |
| 25,001 to 50,000 | 172 | 328 | 173 | 2,449 | 4,128 | 2,091 | 70.4 | 79.4 | 82.5 |
| 50,001 to 100,000 | 150 | 380 | 228 | 2,060 | 4,018 | 2,979 | 73.0 | 94.6 | 76.7 |
| 100,001 to 200,000 | 214 | 438 | 281 | 2,124 | 3,947 | 2,993 | 100.7 | 111.1 | 94.0 |
| 200,001 to 500,000 | 219 | 354 | 152 | 2,155 | 3,427 | 1,593 | 101.7 | 103.2 | 95.3 |
| Over 500,000 | 176 | 421 | Q | 1,566 | 2,986 | 1,357 | 112.1 | 141.2 | Q |
| **Principal Building Activity** | | | | | | | | | |
| Education | 248 | 385 | 187 | 3,191 | 4,359 | 2,324 | 77.6 | 88.4 | 80.6 |
| Food Sales | Q | 116 | Q | 277 | 587 | 391 | Q | 197.0 | Q |
| Food Service | 89 | 152 | 187 | 613 | 524 | 517 | 144.4 | 290.1 | 361.2 |
| Health Care | 130 | 361 | 103 | 730 | 1,671 | 762 | 177.7 | 215.8 | 135.7 |
| Inpatient | Q | 311 | Q | 456 | 1,218 | 231 | Q | 255.3 | Q |
| Outpatient | Q | 50 | 45 | 273 | 453 | 531 | Q | 109.6 | 84.4 |
| Lodging | 109 | 286 | 114 | 1,236 | 2,564 | 1,296 | Q | 111.7 | 88.1 |
| Retail (Other Than Mall) | 76 | 115 | 128 | 1,026 | 1,804 | 1,487 | 73.9 | 63.5 | 86.4 |
| Office | 267 | 641 | 226 | 2,852 | 6,792 | 2,563 | 93.6 | 94.4 | 88.0 |
| Public Assembly | 90 | 156 | 124 | 1,455 | 1,450 | 1,035 | 62.0 | 107.6 | 119.7 |
| Public Order and Safety | Q | 39 | Q | Q | 385 | 453 | Q | 101.3 | Q |
| Religious Worship | 71 | 53 | 39 | 1,522 | 1,328 | 904 | 46.6 | 39.9 | 43.3 |
| Service | 66 | 168 | 78 | 1,057 | 1,954 | 1,040 | 62.8 | 85.9 | 74.8 |
| Warehouse and Storage | 166 | 156 | 134 | 2,029 | 4,014 | 4,034 | 81.6 | 38.8 | 33.3 |
| Other | Q | 142 | Q | 372 | 693 | 673 | Q | Q | Q |
| Vacant | Q | Q | Q | 1,073 | 1,080 | 415 | Q | Q | Q |
| **Census Region and Division** | | | | | | | | | |
| Northeast | 525 | 548 | 198 | 6,004 | 4,834 | 2,067 | 87.4 | 113.4 | 95.9 |
| New England | 101 | 135 | Q | 1,404 | 1,058 | 502 | 72.3 | 127.6 | Q |
| Middle Atlantic | 423 | 413 | 141 | 4,600 | 3,776 | 1,565 | 92.0 | 109.4 | 90.2 |
| Midwest | 550 | 748 | 393 | 5,679 | 7,415 | 3,986 | 96.8 | 100.8 | 98.5 |
| East North Central | 426 | 549 | 279 | 4,056 | 5,064 | 2,475 | 105.1 | 108.3 | 112.6 |
| West North Central | 123 | 199 | 114 | 1,623 | 2,351 | 1,511 | 76.0 | 84.6 | 75.4 |
| South | 257 | 969 | 721 | 3,659 | 11,032 | 8,798 | 70.4 | 87.9 | 82.0 |
| South Atlantic | 153 | 471 | 440 | 2,087 | 5,247 | 4,924 | 73.5 | 89.7 | 89.3 |
| East South Central | 41 | 182 | 86 | 583 | 1,703 | 1,108 | 69.9 | 107.1 | 77.7 |
| West South Central | 63 | 316 | 196 | 989 | 4,082 | 2,766 | 64.1 | 77.5 | 70.7 |
| West | 156 | 529 | 226 | 2,343 | 5,924 | 3,042 | 66.6 | 89.3 | 74.4 |
| Mountain | 51 | 255 | 76 | 524 | 2,217 | 934 | 97.0 | 114.9 | 81.2 |
| Pacific | 105 | 274 | 150 | 1,819 | 3,708 | 2,108 | 57.9 | 73.9 | 71.4 |
| **Climate Zone: 30-Year Average** | | | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | | | |
| More than 7,000 HDD | 279 | 488 | 224 | 3,390 | 4,652 | 2,580 | 82.2 | 104.8 | 86.6 |
| 5,500-7,000 HDD | 583 | 827 | 350 | 6,069 | 7,626 | 3,640 | 96.1 | 108.5 | 96.2 |
| 4,000-5,499 HDD | 380 | 517 | 237 | 4,078 | 4,911 | 2,515 | 93.3 | 105.2 | 94.1 |
| Fewer than 4,000 HDD | 183 | 608 | 422 | 3,095 | 7,506 | 5,137 | 59.0 | 81.0 | 82.1 |
| 2,000 CDD or More and -- | | | | | | | | | |
| Fewer than 4,000 HDD | 63 | 354 | 307 | 1,052 | 4,511 | 4,021 | 60.0 | 78.4 | 76.3 |

# Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Number of Floors** | | | | | | | | | |
| One | 377 | 863 | 698 | 4,849 | 11,814 | 9,318 | 77.7 | 73.0 | 74.9 |
| Two | 345 | 628 | 338 | 4,548 | 7,501 | 4,221 | 75.8 | 83.7 | 80.1 |
| Three | 250 | 241 | 128 | 3,470 | 2,465 | 1,565 | 72.1 | 97.7 | 82.0 |
| Four to Nine | 340 | 698 | 299 | 3,403 | 4,507 | 2,175 | 99.8 | 154.8 | 137.5 |
| Ten or More | 177 | 365 | Q | 1,415 | 2,919 | 613 | 124.9 | 124.9 | Q |
| **Elevators and Escalators (more than one may apply)** | | | | | | | | | |
| Any Elevators | 639 | 1,491 | 696 | 6,588 | 11,645 | 6,384 | 97.0 | 128.0 | 109.0 |
| Number of Elevators | | | | | | | | | |
| One | 171 | 341 | 220 | 2,392 | 3,249 | 2,580 | 71.6 | 104.9 | 85.1 |
| Two to Five | 260 | 614 | 284 | 2,821 | 4,792 | 2,516 | 92.0 | 128.1 | 112.8 |
| Six or More | 208 | 536 | 193 | 1,375 | 3,605 | 1,288 | 151.1 | 148.8 | 149.5 |
| Any Escalators | Q | 193 | Q | Q | 1,598 | Q | Q | 120.7 | Q |
| **Number of Workers (main shift)** | | | | | | | | | |
| Fewer than 5 | 362 | 295 | 160 | 5,370 | 6,047 | 4,075 | 67.5 | 48.8 | 39.3 |
| 5 to 9 | 127 | 220 | 121 | 1,766 | 2,693 | 1,706 | 72.1 | 81.6 | 71.1 |
| 10 to 19 | 166 | 235 | 193 | 2,429 | 3,045 | 2,329 | 68.5 | 77.2 | 82.8 |
| 20 to 49 | 256 | 480 | 314 | 3,158 | 4,568 | 3,262 | 81.2 | 105.0 | 96.2 |
| 50 to 99 | 161 | 347 | 220 | 1,781 | 3,725 | 2,428 | 90.2 | 93.2 | 90.6 |
| 100 to 249 | 147 | 459 | 232 | 1,284 | 3,779 | 1,808 | 114.2 | 121.6 | 128.1 |
| 250 or More | 268 | 758 | 299 | 1,896 | 5,347 | 2,285 | 141.4 | 141.7 | 130.8 |
| **Weekly Operating Hours** | | | | | | | | | |
| Fewer than 40 | 88 | 94 | 46 | 2,541 | 2,798 | 1,525 | 34.5 | 33.7 | 30.0 |
| 40 to 48 | 253 | 363 | 157 | 3,627 | 5,079 | 2,917 | 69.8 | 71.5 | 53.8 |
| 49 to 60 | 385 | 536 | 259 | 4,564 | 7,382 | 3,777 | 84.4 | 72.5 | 68.5 |
| 61 to 84 | 258 | 414 | 252 | 2,728 | 4,615 | 2,991 | 94.6 | 89.6 | 84.3 |
| 85 to 167 | 152 | 379 | 359 | 1,353 | 2,859 | 2,880 | 112.5 | 132.5 | 124.5 |
| Open Continuously | 352 | 1,008 | 467 | 2,872 | 6,473 | 3,803 | 122.5 | 155.8 | 122.7 |
| **Ownership and Occupancy** | | | | | | | | | |
| Nongovernment Owned | 1,009 | 2,054 | 1,140 | 12,993 | 22,391 | 14,037 | 77.6 | 91.7 | 81.2 |
| Owner Occupied | 579 | 962 | 519 | 7,114 | 10,422 | 6,055 | 81.4 | 92.3 | 85.7 |
| Nonowner Occupied | 423 | 1,076 | 616 | 5,206 | 11,103 | 7,604 | 81.2 | 96.9 | 81.0 |
| Unoccupied | Q | Q | Q | 673 | 865 | Q | Q | Q | Q |
| Government Owned | 479 | 740 | 398 | 4,692 | 6,814 | 3,856 | 102.1 | 108.5 | 103.3 |
| Federal | 142 | 109 | Q | 843 | 737 | Q | 168.6 | 147.6 | Q |
| State | 86 | 304 | 123 | 838 | 2,122 | 848 | 103.1 | 143.1 | 145.4 |
| Local | 251 | 327 | 223 | 3,011 | 3,955 | 2,632 | 83.3 | 82.7 | 84.6 |
| **Vacancy Status** | | | | | | | | | |
| Completely Vacant | Q | Q | Q | 905 | 879 | Q | Q | Q | Q |
| Mostly Vacant | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| Partially Vacant | 319 | 538 | 229 | 3,680 | 5,693 | 3,009 | 86.7 | 94.4 | 76.2 |
| Not At All Vacant | 1,146 | 2,231 | 1,303 | 12,933 | 22,432 | 14,469 | 88.6 | 99.5 | 90.1 |
| **Number of Establishments** | | | | | | | | | |
| One | 1,095 | 1,929 | 1,143 | 12,247 | 19,473 | 13,424 | 89.4 | 99.0 | 85.2 |
| 2 to 5 | 240 | 508 | 245 | 2,930 | 5,170 | 2,860 | 81.9 | 98.2 | 85.6 |
| 6 to 10 | 39 | 102 | 75 | 467 | 989 | 501 | 82.6 | 103.1 | 149.3 |
| 11 to 20 | Q | 93 | Q | 529 | 974 | 449 | Q | 95.3 | Q |
| More than 20 | Q | 145 | Q | 607 | 1,720 | Q | Q | 84.5 | Q |
| Currently Unoccupied | Q | Q | Q | 905 | 879 | Q | Q | Q | Q |

# Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Predominant Exterior Wall Material** | | | | | | | | | |
| Brick, Stone or Stucco | 1,111 | 1,372 | 703 | 12,922 | 13,061 | 6,834 | 86.0 | 105.0 | 102.8 |
| Concrete (Block or Poured) | 244 | 500 | 230 | 2,696 | 5,446 | 2,690 | 90.4 | 91.8 | 85.5 |
| Concrete Panels | Q | 419 | 233 | 166 | 3,595 | 2,798 | Q | 116.6 | 83.4 |
| Siding or Shingles | 72 | 105 | 100 | 1,186 | 1,526 | 1,407 | 60.4 | 69.0 | 70.8 |
| Metal Panels | Q | 236 | 192 | 524 | 4,016 | 3,372 | Q | 58.9 | 56.8 |
| Window Glass | Q | 60 | Q | Q | 624 | Q | Q | 95.5 | Q |
| Other | Q | Q | Q | Q | 730 | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Predominant Roof Material** | | | | | | | | | |
| Built-Up | 578 | 1,119 | 386 | 6,646 | 10,567 | 3,957 | 86.9 | 105.9 | 97.6 |
| Shingles (Not Wood) | 265 | 351 | 207 | 3,347 | 4,170 | 2,678 | 79.1 | 84.2 | 77.1 |
| Metal Surfacing | 51 | 254 | 325 | 1,072 | 4,964 | 5,908 | 47.8 | 51.2 | 54.9 |
| Synthetic or Rubber | 308 | 822 | 519 | 3,530 | 6,959 | 4,240 | 87.3 | 118.1 | 122.3 |
| Slate or Tile | 91 | 58 | 58 | 1,185 | 705 | 572 | 76.8 | 82.3 | 101.9 |
| Wooden Materials | Q | 40 | Q | 314 | 464 | Q | Q | 86.5 | Q |
| Concrete | Q | Q | Q | Q | 666 | Q | Q | Q | Q |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| No One Major Type | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Renovations in Buildings Constructed Before 1980 (more than one may apply)** | | | | | | | | | |
| Any Type of Renovation Since 1980 | 830 | 937 | N | 9,146 | 8,698 | N | 90.7 | 107.7 | N |
| Addition or Annex | 290 | 443 | N | 3,069 | 3,482 | N | 94.3 | 127.3 | N |
| Reduction In Floorspace | Q | Q | N | 501 | 511 | N | Q | Q | N |
| Cosmetic Improvements | 606 | 712 | N | 6,751 | 6,368 | N | 89.7 | 111.8 | N |
| Wall or Roof Replacement | 343 | 434 | N | 4,168 | 3,903 | N | 82.3 | 111.2 | N |
| Interior Wall Re-Configuration | 378 | 534 | N | 4,191 | 4,327 | N | 90.1 | 123.3 | N |
| HVAC Equipment Upgrade | 510 | 646 | N | 5,436 | 5,332 | N | 93.9 | 121.2 | N |
| Lighting Upgrade | 489 | 596 | N | 5,483 | 4,792 | N | 89.2 | 124.4 | N |
| Window Replacement | 344 | 269 | N | 4,090 | 2,264 | N | 84.2 | 118.6 | N |
| Plumbing System Upgrade | 368 | 380 | N | 4,013 | 3,130 | N | 91.8 | 121.3 | N |
| Insulation Upgrade | 173 | 207 | N | 2,212 | 1,803 | N | 78.4 | 115.0 | N |
| Other Renovation | Q | Q | N | 451 | Q | N | Q | Q | N |
| No Renovations Since 1980 | 658 | 823 | N | 8,539 | 10,175 | N | 77.1 | 80.9 | N |
| Building Newer than 1980 | N | 1,034 | 1,539 | N | 10,332 | 17,893 | N | 100.1 | 86.0 |
| **Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 1,488 | 2,794 | 1,538 | 17,163 | 28,766 | 17,378 | 86.7 | 97.1 | 88.5 |
| Natural Gas | 1,082 | 2,175 | 1,235 | 12,097 | 19,763 | 11,608 | 89.4 | 110.1 | 106.4 |
| Fuel Oil | 481 | 908 | 370 | 4,995 | 6,951 | 3,211 | 96.4 | 130.7 | 115.3 |
| District Heat | 354 | 490 | Q | 2,206 | 2,330 | 908 | 160.6 | 210.4 | Q |
| District Chilled Water | Q | 286 | Q | 510 | 1,433 | 910 | Q | 199.4 | Q |
| Propane | 209 | 233 | 143 | 2,025 | 2,890 | 2,161 | 103.2 | 80.5 | 66.0 |
| Other | 21 | 84 | Q | 331 | 806 | 263 | 64.1 | 104.7 | Q |

# Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Space-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 427 | 1,222 | 724 | 5,769 | 13,818 | 9,013 | 74.1 | 88.4 | 80.3 |
| Natural Gas | 881 | 1,793 | 1,007 | 10,050 | 17,081 | 9,828 | 87.7 | 105.0 | 102.5 |
| Fuel Oil | 293 | 225 | 73 | 3,466 | 1,895 | 627 | 84.4 | 118.8 | 116.6 |
| District Heat | 349 | 475 | Q | 2,147 | 2,171 | 880 | 162.4 | 218.7 | Q |
| Propane | 55 | 60 | 45 | 972 | 1,238 | 993 | 56.3 | 48.2 | 45.8 |
| Other | Q | 30 | Q | 203 | 465 | Q | Q | 64.5 | Q |
| **Primary Space-Heating Energy Source** | | | | | | | | | |
| Electricity | 112 | 587 | 390 | 1,886 | 8,416 | 5,694 | 59.2 | 69.7 | 68.6 |
| Natural Gas | 830 | 1,581 | 869 | 9,431 | 15,149 | 8,390 | 88.1 | 104.3 | 103.6 |
| Fuel Oil | 179 | 92 | Q | 2,583 | 958 | Q | 69.4 | 96.4 | Q |
| District Heat | 326 | 458 | Q | 2,001 | 2,044 | 862 | 163.0 | 224.1 | Q |
| Propane | 13 | 22 | 37 | 450 | 777 | 729 | 28.4 | 28.0 | 50.7 |
| Other | Q | Q | Q | Q | 198 | Q | Q | Q | Q |
| **Cooling Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 1,128 | 2,530 | 1,363 | 13,263 | 25,843 | 15,214 | 85.0 | 97.9 | 89.6 |
| Natural Gas | Q | Q | Q | Q | 419 | Q | Q | Q | Q |
| District Chilled Water | Q | 286 | Q | 510 | 1,433 | 910 | Q | 199.4 | Q |
| **Water-Heating Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 431 | 1,105 | 609 | 6,039 | 13,305 | 8,147 | 71.4 | 83.1 | 74.7 |
| Natural Gas | 765 | 1,507 | 934 | 8,044 | 13,116 | 7,661 | 95.0 | 114.9 | 122.0 |
| Fuel Oil | 92 | 92 | Q | 1,047 | 668 | Q | Q | 138.5 | Q |
| District Heat | 167 | 331 | Q | 1,127 | 1,622 | 340 | 148.1 | 203.9 | Q |
| Propane | Q | 29 | Q | 346 | 651 | 426 | Q | 44.5 | Q |
| **Cooking Energy Sources (more than one may apply)** | | | | | | | | | |
| Electricity | 333 | 834 | 412 | 3,320 | 6,449 | 3,392 | 100.4 | 129.3 | 121.5 |
| Natural Gas | 524 | 961 | 588 | 4,847 | 6,307 | 4,284 | 108.1 | 152.4 | 137.4 |
| Propane | Q | 50 | Q | 450 | 678 | 332 | Q | 74.0 | Q |
| **Energy End Uses (more than one may apply)** | | | | | | | | | |
| Buildings with Space Heating | 1,464 | 2,747 | 1,495 | 16,437 | 27,541 | 16,049 | 89.0 | 99.7 | 93.1 |
| Buildings with Cooling | 1,229 | 2,719 | 1,517 | 13,855 | 26,933 | 16,152 | 88.7 | 100.9 | 93.9 |
| Buildings with Water Heating | 1,291 | 2,708 | 1,500 | 14,569 | 26,409 | 15,499 | 88.6 | 102.5 | 96.8 |
| Buildings with Cooking | 694 | 1,289 | 729 | 6,760 | 9,776 | 5,701 | 102.7 | 131.9 | 127.9 |
| Buildings with Manufacturing | 67 | 115 | 72 | 928 | 1,480 | 730 | 72.7 | 77.9 | 98.0 |
| Buildings with Electricity Generation | 315 | 975 | 403 | 2,294 | 6,955 | 3,572 | 137.3 | 140.2 | 112.9 |
| **Percent of Floorspace Heated** | | | | | | | | | |
| Not Heated | 24 | 47 | 44 | 1,248 | 1,664 | 1,844 | 19.6 | 28.1 | 23.7 |
| 1 to 50 | 75 | 104 | 120 | 1,960 | 2,608 | 2,281 | 38.2 | 39.9 | 52.4 |
| 51 to 99 | 222 | 332 | 192 | 2,611 | 3,476 | 2,020 | 85.0 | 95.5 | 95.2 |
| 100 | 1,167 | 2,311 | 1,183 | 11,866 | 21,458 | 11,748 | 98.3 | 107.7 | 100.7 |

## Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Percent of Floorspace Cooled** | | | | | | | | | |
| Not Cooled | 259 | 75 | 22 | 3,830 | 2,272 | 1,741 | 67.6 | 33.1 | 12.5 |
| 1 to 50 | 376 | 432 | 218 | 5,393 | 7,014 | 4,191 | 69.8 | 61.5 | 52.0 |
| 51 to 99 | 348 | 693 | 372 | 3,663 | 6,171 | 3,377 | 94.9 | 112.3 | 110.2 |
| 100 | 505 | 1,594 | 927 | 4,799 | 13,748 | 8,584 | 105.2 | 115.9 | 108.0 |
| **Percent Lit When Open** | | | | | | | | | |
| Zero | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| 1 to 50 | 227 | 191 | 122 | 3,977 | 3,766 | 2,461 | 57.1 | 50.6 | 49.7 |
| 51 to 99 | 433 | 888 | 415 | 4,889 | 9,002 | 4,398 | 88.5 | 98.7 | 94.3 |
| 100 | 804 | 1,692 | 993 | 7,611 | 15,221 | 9,957 | 105.6 | 111.2 | 99.8 |
| Building Never Open/ Electricity Not Used | Q | Q | Q | 1,155 | 1,172 | 883 | Q | Q | Q |
| **Percent Lit When Closed** | | | | | | | | | |
| Zero | 400 | 431 | 302 | 5,199 | 7,017 | 5,169 | 76.9 | 61.4 | 58.4 |
| 1 to 50 | 716 | 1,253 | 657 | 8,854 | 14,432 | 7,662 | 80.9 | 86.8 | 85.7 |
| 51 to 100 | Q | 101 | 113 | 238 | 961 | 894 | Q | 105.4 | 126.7 |
| Building Never Closed/ Electricity Not Used | 352 | 1,008 | 467 | 3,394 | 6,795 | 4,168 | 103.7 | 148.4 | 112.0 |
| **Heating Equipment (more than one may apply)** | | | | | | | | | |
| Heat Pumps | 136 | 422 | 247 | 1,617 | 4,223 | 2,973 | 83.9 | 99.9 | 83.1 |
| Packaged Heat Pumps | 78 | 307 | 138 | 796 | 3,059 | 1,587 | 98.5 | 100.3 | 86.7 |
| Split-System Heat Pumps | 23 | 104 | 71 | 364 | 1,214 | 1,003 | 63.6 | 85.7 | 70.8 |
| Individual Room Heat Pumps | 62 | 113 | 80 | 753 | 1,050 | 888 | 82.3 | 107.6 | 89.8 |
| Furnaces | 423 | 655 | 415 | 5,910 | 8,376 | 5,329 | 71.5 | 78.2 | 77.9 |
| Individual Space Heaters | 246 | 506 | 272 | 3,650 | 5,661 | 3,233 | 67.3 | 89.3 | 84.2 |
| District Heat | 349 | 467 | Q | 2,147 | 2,139 | 880 | 162.4 | 218.1 | Q |
| Boilers | 734 | 1,100 | 410 | 7,751 | 9,099 | 3,573 | 94.7 | 120.9 | 114.8 |
| Packaged Heating Units | 243 | 869 | 617 | 2,791 | 9,252 | 5,978 | 87.2 | 93.9 | 103.1 |
| Other | Q | 128 | 74 | 386 | 1,662 | 1,215 | Q | 77.2 | 61.0 |
| **Cooling Equipment (more than one may apply)** | | | | | | | | | |
| Residential-Type Central Air Conditioners | 301 | 389 | 234 | 3,470 | 4,779 | 2,786 | 86.6 | 81.4 | 84.1 |
| Heat Pumps | 150 | 418 | 269 | 1,699 | 4,241 | 3,102 | 88.0 | 98.7 | 86.8 |
| Packaged Heat Pumps | 90 | 301 | 138 | 860 | 2,997 | 1,569 | 104.4 | 100.3 | 88.1 |
| Split-System Heat Pumps | 29 | 103 | 73 | 419 | 1,205 | 981 | 68.5 | 85.2 | 74.3 |
| Individual Room Heat Pumps | 59 | 120 | 99 | 716 | 1,183 | 1,041 | 82.4 | 101.3 | 94.9 |
| Individual Air Conditioners | 448 | 456 | 177 | 5,406 | 5,295 | 1,858 | 82.8 | 86.0 | 95.1 |
| District Chilled Water | Q | 286 | Q | 510 | 1,433 | 910 | Q | 199.4 | Q |
| Central Chillers | 299 | 922 | 311 | 2,346 | 6,900 | 2,390 | 127.3 | 133.6 | 130.1 |
| Packaged Air Conditioning Units | 633 | 1,376 | 854 | 7,068 | 13,851 | 9,050 | 89.5 | 99.3 | 94.3 |
| Swamp Coolers | Q | 115 | Q | 221 | 1,072 | 269 | Q | 107.5 | Q |
| Other | Q | Q | Q | 416 | 528 | 287 | Q | Q | Q |
| **Main Equipment Replaced Since 1990 (more than one may apply)** | | | | | | | | | |
| Heating | 429 | 938 | N | 6,052 | 10,351 | N | 70.9 | 90.7 | N |
| Cooling | 633 | 1,316 | N | 7,686 | 13,309 | N | 82.3 | 98.9 | N |

# Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Water Heating Equipment** | | | | | | | | | |
| Centralized System | 848 | 1,686 | 899 | 8,889 | 16,543 | 9,240 | 95.4 | 101.9 | 97.3 |
| Distributed System | 195 | 374 | 266 | 3,221 | 4,871 | 3,448 | 60.6 | 76.9 | 77.1 |
| Combination of Centralized and Distributed System | 248 | 648 | 336 | 2,459 | 4,996 | 2,812 | 100.7 | 129.6 | 119.4 |
| **Lighting Equipment Types (more than one may apply)** | | | | | | | | | |
| Incandescent | 965 | 1,997 | 955 | 11,094 | 18,083 | 9,351 | 87.0 | 110.4 | 102.1 |
| Standard Fluorescent | 1,415 | 2,735 | 1,493 | 15,996 | 27,530 | 16,161 | 88.5 | 99.4 | 92.4 |
| Compact Fluorescent | 687 | 1,688 | 833 | 6,587 | 13,504 | 7,480 | 104.2 | 125.0 | 111.4 |
| High Intensity Discharge | 498 | 975 | 668 | 4,992 | 9,231 | 6,420 | 99.8 | 105.7 | 104.0 |
| Halogen | 427 | 994 | 561 | 4,079 | 8,102 | 5,522 | 104.6 | 122.6 | 101.7 |
| Other | Q | Q | Q | Q | Q | Q | Q | Q | Q |
| **Refrigeration Equipment (more than one may apply)[a]** | | | | | | | | | |
| Any Refrigeration | 1,230 | 2,527 | 1,456 | 13,973 | 24,165 | 14,836 | 88.0 | 104.6 | 98.1 |
| Commercial Refrigeration | 772 | 1,648 | 916 | 7,421 | 12,240 | 7,107 | 104.0 | 134.6 | 128.9 |
| Walk-In Units | 566 | 1,421 | 780 | 5,242 | 9,625 | 5,387 | 107.9 | 147.6 | 144.7 |
| Cases or Cabinets | 614 | 1,379 | 710 | 5,492 | 9,628 | 5,304 | 111.8 | 143.2 | 133.8 |
| Residential-Type Units | 912 | 1,666 | 888 | 11,110 | 17,563 | 10,211 | 82.1 | 94.9 | 87.0 |
| Vending Machines | 775 | 1,914 | 1,032 | 7,833 | 17,126 | 10,375 | 98.9 | 111.8 | 99.5 |
| No Refrigeration | 258 | 266 | 83 | 3,712 | 5,040 | 3,057 | 69.4 | 52.8 | 27.2 |
| **Office Equipment (more than one may apply)** | | | | | | | | | |
| Computers | 1,256 | 2,653 | 1,467 | 14,244 | 25,894 | 15,490 | 88.2 | 102.5 | 94.7 |
| With Flat Screen Monitors | 630 | 1,568 | 768 | 6,001 | 13,348 | 7,068 | 104.9 | 117.5 | 108.7 |
| Dedicated Servers | 771 | 1,959 | 1,031 | 8,136 | 17,936 | 10,265 | 94.7 | 109.2 | 100.4 |
| Laser Printers | 766 | 1,460 | 783 | 9,240 | 15,256 | 8,516 | 82.9 | 95.7 | 91.9 |
| Inkjet Printers | 675 | 1,675 | 953 | 6,987 | 15,573 | 9,650 | 96.5 | 107.5 | 98.8 |
| FAX Machines | 1,169 | 2,519 | 1,403 | 13,208 | 24,496 | 14,669 | 88.5 | 102.8 | 95.7 |
| Photocopiers | 1,037 | 2,248 | 1,180 | 11,473 | 21,832 | 12,952 | 90.4 | 103.0 | 91.1 |
| **Number of Computers** | | | | | | | | | |
| None | 232 | 141 | 72 | 3,441 | 3,311 | 2,403 | 67.3 | 42.5 | 30.0 |
| 1 to 4 | 306 | 392 | 318 | 4,022 | 5,011 | 3,362 | 76.0 | 78.3 | 94.4 |
| 5 to 9 | 139 | 237 | 170 | 2,124 | 2,820 | 2,236 | 65.7 | 83.9 | 75.9 |
| 10 to 19 | 103 | 253 | 159 | 1,268 | 3,254 | 2,088 | 81.1 | 77.8 | 76.2 |
| 20 to 49 | 156 | 332 | 220 | 1,808 | 3,178 | 2,428 | 86.0 | 104.4 | 90.4 |
| 50 to 99 | 135 | 276 | 102 | 1,607 | 2,523 | 1,246 | 83.8 | 109.4 | 81.8 |
| 100 to 249 | 149 | 362 | 202 | 1,507 | 3,277 | 1,907 | 99.2 | 110.5 | 106.0 |
| 250 or More | 269 | 801 | 296 | 1,909 | 5,832 | 2,222 | 140.7 | 137.4 | 133.4 |
| **Number of Dedicated Servers** | | | | | | | | | |
| None | 717 | 835 | 508 | 9,549 | 11,269 | 7,628 | 75.1 | 74.1 | 66.6 |
| 1 to 4 | 470 | 1,138 | 625 | 5,444 | 11,560 | 7,112 | 86.4 | 98.5 | 87.9 |
| 5 to 9 | 98 | 179 | 129 | 1,078 | 1,607 | 1,180 | 90.8 | 111.2 | 109.2 |
| 10 to 19 | 104 | 221 | 107 | 795 | 1,468 | 764 | 130.8 | 150.8 | 139.6 |
| 20 to 49 | Q | 221 | Q | 239 | 1,921 | 423 | Q | 114.9 | Q |
| 50 or More | Q | 200 | 118 | 581 | 1,380 | 787 | Q | 144.7 | 149.8 |

## Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings*** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |
| **Number of Photocopiers** | | | | | | | | | |
| None | 451 | 546 | 358 | 6,212 | 7,374 | 4,941 | 72.6 | 74.0 | 72.5 |
| One | 325 | 451 | 354 | 4,324 | 6,116 | 5,035 | 75.1 | 73.7 | 70.3 |
| 2 to 4 | 283 | 696 | 355 | 3,669 | 7,155 | 4,258 | 77.3 | 97.2 | 83.4 |
| 5 to 9 | 114 | 297 | 201 | 1,256 | 2,754 | 1,505 | 90.5 | 107.9 | 133.6 |
| 10 or More | 315 | 804 | 270 | 2,224 | 5,806 | 2,154 | 141.7 | 138.5 | 125.3 |
| **Energy-Related Space Functions (more than one may apply)** | | | | | | | | | |
| Commercial Food Preparation | 693 | 1,289 | 729 | 6,748 | 9,774 | 5,701 | 102.6 | 131.9 | 127.9 |
| Activities with Large Amounts of Hot Water | 533 | 1,271 | 661 | 4,912 | 9,140 | 5,430 | 108.6 | 139.1 | 121.8 |
| Separate Computer Area | 630 | 1,561 | 703 | 6,222 | 13,495 | 7,156 | 101.3 | 115.7 | 98.3 |
| **HVAC Conservation Features (more than one may apply)** | | | | | | | | | |
| Variable Air-Volume System | 407 | 1,297 | 676 | 3,465 | 9,798 | 6,335 | 117.4 | 132.4 | 106.7 |
| Economizer Cycle | 424 | 1,461 | 703 | 3,618 | 11,196 | 6,294 | 117.2 | 130.5 | 111.7 |
| HVAC Maintenance | 1,242 | 2,501 | 1,427 | 13,084 | 23,507 | 14,572 | 94.9 | 106.4 | 97.9 |
| Energy Management and Control System (EMCS) | 326 | 985 | 471 | 2,975 | 8,078 | 4,577 | 109.6 | 122.0 | 102.8 |
| **Window and Interior Lighting Features (more than one may apply)** | | | | | | | | | |
| Multipaned Windows | 850 | 1,876 | 1,203 | 9,646 | 16,720 | 12,544 | 88.1 | 112.2 | 95.9 |
| Tinted Window Glass | 567 | 1,669 | 862 | 5,566 | 15,091 | 9,231 | 101.9 | 110.6 | 93.4 |
| Reflective Window Glass | 161 | 479 | 286 | 1,579 | 4,009 | 2,956 | 102.0 | 119.6 | 96.8 |
| External Overhangs or Awnings | 344 | 902 | 491 | 4,147 | 8,148 | 4,947 | 82.9 | 110.7 | 99.1 |
| Skylights or Atriums | 245 | 686 | 376 | 2,666 | 6,130 | 3,750 | 91.9 | 111.8 | 100.3 |
| Daylighting Sensors | 49 | 197 | 130 | 448 | 1,407 | 1,014 | 110.1 | 140.3 | 128.4 |
| Specular Reflectors | 627 | 1,410 | 792 | 6,340 | 12,258 | 7,519 | 98.9 | 115.0 | 105.3 |
| Electronic Ballasts | 1,143 | 2,313 | 1,290 | 11,938 | 21,721 | 13,223 | 95.7 | 106.5 | 97.6 |
| Energy Management and Control System (EMCS) For Lighting | 59 | 306 | 174 | 565 | 2,606 | 1,610 | 103.8 | 117.5 | 107.9 |
| **Equipment Usage Reduced When Building Not In Full Use (more than one may apply)[a]** | | | | | | | | | |
| Heating | 937 | 1,836 | 967 | 11,574 | 20,077 | 11,070 | 81.0 | 91.4 | 87.4 |
| Cooling | 911 | 1,874 | 1,059 | 11,103 | 20,157 | 11,945 | 82.1 | 93.0 | 88.6 |
| Lighting | 1,096 | 1,701 | 1,021 | 13,346 | 20,951 | 12,690 | 82.2 | 81.2 | 80.4 |
| Office Equipment | 470 | 598 | 398 | 6,195 | 8,140 | 5,062 | 75.8 | 73.4 | 78.6 |

## Table C12. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels for Non-Mall Buildings, 2003

| | Sum of Major Fuel Consumption (trillion Btu) | | | Total Floorspace of Buildings (million square feet) | | | Energy Intensity for Sum of Major Fuels (thousand Btu/square foot) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 | 1959 or Before | 1960 to 1989 | 1990 to 2003 |
| **All Buildings* .....** | 1,488 | 2,794 | 1,539 | 17,685 | 29,205 | 17,893 | 84.1 | 95.7 | 86.0 |

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.