

**Table C30A. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for All Buildings, 2003**

|  | Total Natural Gas Consumption<br>(billion cubic feet) |        |        |        |        | Total Floorspace of Buildings Using Natural Gas<br>(million square feet) |        |        |        |        | Natural Gas Energy Intensity<br>(cubic feet/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 |
| <b>All Buildings</b> .....               | 454   | 715    | 356    | 378    | 134    | 8,486  | 14,122 | 8,970  | 11,796 | 5,098  | 53.5   | 50.6   | 39.7   | 32.0   | 26.3   |
| <b>Building Floorspace (Square Feet)</b> |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| 1,001 to 5,000 .....                     | 57  | 84     | 35     | 58     | 16     | 666  | 1,015  | 427    | 832    | 234    | 84.8   | 83.1   | 81.9   | 69.6   | 66.6   |
| 5,001 to 10,000 .....                    | 50  | 57     | 33     | 61     | 17     | 666  | 1,030  | 639    | 1,243  | 392    | 75.2   | 54.9   | 51.2   | 49.2   | 44.0   |
| 10,001 to 25,000 .....                   | 98  | 121    | 53     | 55     | 15     | 1,831  | 2,415  | 1,024  | 1,994  | 561    | 53.7   | 50.1   | 52.1   | 27.5   | 27.4   |
| 25,001 to 50,000 .....                   | 61  | 95     | 56     | 39     | 19     | 1,340  | 1,963  | 1,138  | 1,662  | 501    | 45.7   | 48.3   | 49.5   | 23.3   | 37.8   |
| 50,001 to 100,000 .....                  | 64  | 97     | 47     | 45     | 16     | 1,217  | 2,300  | 1,453  | 1,744  | 786    | 52.3   | 42.2   | 32.7   | 25.9   | 19.8   |
| 100,001 to 200,000 .....                 | 38  | 123    | 34     | Q      | 12     | 1,075  | 2,316  | 1,431  | 1,833  | 889    | 35.6   | 53.0   | 23.5   | 32.8   | 13.5   |
| 200,001 to 500,000 .....                 | 55  | 62     | 40     | 31     | 16     | 1,036  | 1,517  | 1,439  | 1,186  | 714    | 52.8   | 41.1   | 27.6   | 26.5   | 22.6   |
| Over 500,000 .....                       | Q   | 76     | 58     | 28     | Q      | Q  | 1,566  | 1,419  | 1,301  | Q      | Q  | 48.4   | 41.2   | 21.7   | Q      |
| <b>Principal Building Activity</b>       |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| Education .....                          | 65  | 113    | 26     | 48     | 9      | 1,227  | 2,281  | 968    | 1,700  | 869    | 53.0   | 49.4   | 26.4   | 28.2   | 10.1   |
| Food Sales .....                         | Q   | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      |
| Food Service .....                       | 27  | 49     | Q      | 64     | 31     | 174  | 368    | Q      | 393    | 277    | 154.3  | 134.4  | Q      | 161.9  | 110.9  |
| Health Care .....                        | 38  | 69     | 36     | 64     | 29     | 383  | 665    | 454    | 720    | 323    | 98.4   | 103.5  | 78.3   | 89.5   | 89.4   |
| Inpatient .....                          | 27  | 56     | 30     | 59     | 26     | 237  | 414    | 302    | 589    | 264    | 114.1  | 136.3  | 99.9   | 99.4   | 98.8   |
| Outpatient .....                         | Q   | 12     | Q      | Q      | Q      | Q  | 251    | Q      | Q      | Q      | Q  | 49.4   | Q      | Q      | Q      |
| Lodging .....                            | 34  | 86     | 36     | 34     | 18     | 609  | 1,183  | 958    | 967    | 538    | 55.5   | 72.8   | Q      | 35.3   | 32.8   |
| Mercantile .....                         | 63  | 83     | 46     | 46     | 17     | 1,433  | 1,867  | 1,308  | 2,219  | 1,044  | 43.8   | 44.6   | 35.3   | 20.9   | 16.6   |
| Retail (Other Than Mall) .....           | 27  | 27     | 16     | 16     | Q      | 593  | 595    | 451    | 931    | Q      | 46.1   | 45.8   | 36.1   | 17.0   | Q      |
| Enclosed and Strip Malls .....           | 35  | 56     | 30     | 30     | Q      | 840  | 1,272  | 857    | 1,287  | Q      | 42.2   | 44.1   | 34.9   | 23.7   | Q      |
| Office .....                             | 60  | 106    | 60     | 22     | 14     | 1,252  | 2,575  | 1,977  | 1,539  | 865    | 48.0   | 41.0   | 30.1   | 14.4   | 16.1   |
| Public Assembly .....                    | 32  | 30     | Q      | 25     | Q      | 639  | 537    | Q      | 700    | Q      | 49.7   | 55.0   | Q      | 35.4   | Q      |
| Public Order and Safety .....            | Q   | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      |
| Religious Worship .....                  | 14  | 38     | 14     | 13     | Q      | 277  | 973    | 412    | 774    | Q      | 49.2   | 38.9   | 32.8   | 16.5   | Q      |
| Service .....                            | 49  | 37     | 18     | 23     | Q      | 697  | 717    | 422    | 511    | Q      | 70.9   | 52.1   | Q      | 44.8   | Q      |
| Warehouse and Storage .....              | 33  | 44     | 33     | 16     | Q      | 963  | 1,672  | 1,071  | 1,463  | Q      | 34.5   | 26.4   | 30.7   | 11.2   | Q      |
| Other .....                              | Q   | Q      | Q      | 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      | Q      | Q      | Q      |
| <b>Year Constructed</b>                  |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| Before 1920 .....                        | 55  | 46     | 25     | Q      | Q      | 832  | 1,048  | 599    | Q      | Q      | 66.4   | 43.6   | 41.9   | Q      | Q      |
| 1920 to 1945 .....                       | 49  | 72     | 77     | 18     | Q      | 764  | 1,345  | 1,588  | 842    | Q      | 64.8   | 53.3   | 48.5   | 21.2   | Q      |
| 1946 to 1959 .....                       | 38  | 100    | 30     | 44     | Q      | 660  | 1,894  | 1,058  | 993    | Q      | 56.9   | 52.7   | 28.2   | 43.9   | Q      |
| 1960 to 1969 .....                       | 62  | 106    | 39     | 42     | 19     | 1,047  | 2,021  | 1,128  | 1,351  | 593    | 59.2   | 52.4   | 34.3   | 31.1   | 32.2   |
| 1970 to 1979 .....                       | 112   | 139    | 50     | 64     | 25     | 1,993  | 2,530  | 1,400  | 1,859  | 1,013  | 56.0   | 55.0   | 36.0   | 34.3   | 24.7   |
| 1980 to 1989 .....                       | 46  | 125    | 54     | 80     | 23     | 762  | 2,210  | 1,265  | 2,542  | 1,049  | 60.0   | 56.7   | 43.1   | 31.4   | 22.1   |
| 1990 to 1999 .....                       | 69  | 87     | 51     | 93     | 34     | 1,735  | 1,988  | 1,202  | 3,012  | 1,267  | 40.0   | 43.8   | 42.4   | 30.9   | 26.9   |
| 2000 to 2003 .....                       | 23  | 40     | Q      | 28     | 15     | 693  | 1,086  | 729    | 990    | 601    | 33.3   | 37.0   | 41.0   | 28.1   | 25.3   |
| <b>Census Region and Division</b>        |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| Northeast .....                          | Q   | 207    | 175    | N      | N      | Q  | 4,188  | 4,676  | N      | N      | 51.1   | 49.4   | 37.4   | N      | N      |
| New England .....                        | Q   | 84     | N      | N      | N      | Q  | 1,848  | N      | N      | N      | Q  | 45.7   | N      | N      | N      |
| Middle Atlantic .....                    | Q   | 123    | 175    | N      | N      | Q  | 2,339  | 4,676  | N      | N      | 51.6   | 52.4   | 37.4   | N      | N      |
| Midwest .....                            | 249   | 435    | 44     | N      | N      | 4,665  | 8,633  | 846    | N      | N      | 53.4   | 50.4   | 51.7   | N      | N      |
| East North Central .....                 | 160   | 390    | N      | N      | N      | 2,807  | 7,549  | N      | N      | N      | 56.9   | 51.7   | N      | N      | N      |
| West North Central .....                 | 89  | 45     | 44     | N      | N      | 1,859  | Q      | 846    | N      | N      | 48.1   | Q      | 51.7   | N      | N      |
| South .....                              | N   | N      | 123    | 269    | 119    | N  | N      | 2,992  | 7,577  | 4,690  | N  | N      | 41.1   | 35.6   | 25.3   |
| South Atlantic .....                     | N   | N      | 71     | 143    | Q      | N  | N      | 2,047  | 4,089  | Q      | N  | N      | 34.5   | 35.0   | 21.4   |
| East South Central .....                 | N   | N      | Q      | Q      | Q      | N  | N      | Q      | Q      | Q      | N  | N      | Q      | 33.5   | 42.7   |
| West South Central .....                 | N   | N      | Q      | 77     | 80     | N  | N      | Q      | 2,020  | 3,205  | N  | N      | Q      | 38.1   | 24.9   |
| West .....                               | 138   | 73     | 15     | 108    | 15     | 2,521  | 1,302  | 456    | 4,219  | 408    | 54.9   | 55.8   | 33.0   | 25.6   | 37.8   |
| Mountain .....                           | 116   | 60     | N      | N      | 9      | 2,019  | 919    | N      | N      | 325    | 57.4   | 64.9   | N      | N      | 27.9   |
| Pacific .....                            | Q   | 13     | 15     | 108    | Q      | Q  | 383    | 456    | 4,219  | Q      | 44.6   | 33.7   | 33.0   | 25.6   | 76.8   |

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**Table C30A. Natural Gas Consumption and Conditional Energy Intensity by Climate Zone<sup>a</sup> for All Buildings, 2003**

|  | Total Natural Gas Consumption<br>(billion cubic feet) |        |        |        |        | Total Floorspace of Buildings Using Natural Gas<br>(million square feet) |        |        |        |        | Natural Gas Energy Intensity<br>(cubic feet/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 |
| <b>All Buildings</b> .....                       | 454   | 715    | 356    | 378    | 134    | 8,486  | 14,122 | 8,970  | 11,796 | 5,098  | 53.5   | 50.6   | 39.7   | 32.0   | 26.3   |
| <b>Number of Establishments</b>                  |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| One .....  | 300   | 501    | 247    | 289    | 80     | 5,184  | 9,094  | 5,555  | 7,980  | 2,706  | 58.0   | 55.1   | 44.4   | 36.2   | 29.7   |
| 2 to 5 .....                                     | 109   | 123    | 42     | 50     | 25     | 2,065  | 2,506  | 1,525  | 1,938  | 683    | 52.7   | 48.9   | 27.3   | 25.9   | 36.8   |
| 6 to 10 .....                                    | 22  | 39     | 13     | Q      | Q      | 537  | 708    | 388    | Q      | Q      | 40.3   | 55.3   | 33.6   | Q      | Q      |
| 11 to 20 .....                                   | Q   | 23     | Q      | Q      | Q      | Q  | 551    | Q      | 524    | Q      | Q  | 41.6   | Q      | 29.7   | Q      |
| More than 20 .....                               | Q   | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      |
| Currently Unoccupied .....                       | Q   | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      | Q  | Q      | Q      | Q      | Q      |
| <b>Energy Sources (more than one may apply)</b>  |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| Electricity .....                                | 454   | 715    | 356    | 378    | 134    | 8,484  | 14,122 | 8,970  | 11,796 | 5,093  | 53.5   | 50.6   | 39.7   | 32.0   | 26.3   |
| Natural Gas .....                                | 454   | 715    | 356    | 378    | 134    | 8,486  | 14,122 | 8,970  | 11,796 | 5,098  | 53.5   | 50.6   | 39.7   | 32.0   | 26.3   |
| Fuel Oil .....                                   | 85  | 161    | 131    | 95     | 36     | 1,381  | 2,636  | 3,788  | 2,045  | 1,447  | 61.5   | 61.0   | 34.5   | 46.3   | 24.8   |
| District Heat .....                              | Q   | Q      | Q      | Q      | Q      | 347  | 922    | 593    | Q      | Q      | Q  | 20.0   | Q      | Q      | Q      |
| <b>Energy End Uses (more than one may apply)</b> |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| Buildings with Space Heating .....               | 453   | 713    | 354    | 363    | 131    | 8,481  | 14,066 | 8,965  | 11,479 | 4,812  | 53.4   | 50.7   | 39.5   | 31.6   | 27.3   |
| Buildings with Cooling .....                     | 427   | 666    | 340    | 361    | 133    | 7,899  | 12,870 | 8,760  | 11,258 | 5,069  | 54.0   | 51.7   | 38.8   | 32.1   | 26.2   |
| Buildings with Water Heating .....               | 445   | 686    | 350    | 363    | 130    | 8,088  | 13,297 | 8,725  | 10,993 | 4,782  | 55.1   | 51.6   | 40.1   | 33.0   | 27.2   |
| <b>Annual Consumption (hundred cubic feet)</b>   |   |        |        |        |        |  |        |        |        |        |  |        |        |        |        |
| 1,000 or Less .....                              | 7   | 9      | 4      | 13     | 3      | 512  | 715    | 868    | 1,578  | 726    | 13.5   | 13.0   | Q      | 8.3    | 3.6    |
| 1,001 to 5,000 .....                             | 52  | 90     | 38     | 63     | 14     | 1,645  | 2,866  | 1,538  | 3,327  | 1,008  | 31.4   | 31.6   | 25.0   | 18.9   | 13.6   |
| 5,001 to 10,000 .....                            | 68  | 91     | 42     | 45     | 20     | 1,246  | 1,897  | 1,035  | 1,691  | 1,079  | 54.2   | 48.0   | 40.2   | 26.9   | 18.2   |
| 10,001 to 25,000 .....                           | 105   | 124    | 60     | 71     | 30     | 1,699  | 2,594  | 1,750  | 1,815  | 746    | 61.9   | 47.7   | 34.3   | 39.4   | 40.1   |
| 25,001 to 50,000 .....                           | 79  | 102    | 54     | 69     | 20     | 1,323  | 2,194  | 1,475  | 1,174  | 635    | 60.0   | 46.4   | 36.7   | 58.5   | 31.4   |
| 50,001 to 100,000 .....                          | 46  | 84     | 60     | Q      | Q      | 787  | 1,499  | 899    | Q      | Q      | 58.6   | 56.1   | 66.8   | Q      | Q      |
| Over 100,000 .....                               | 97  | 214    | 98     | 83     | 37     | 1,275  | 2,358  | 1,404  | 1,022  | 564    | 76.2   | 90.8   | 69.8   | 81.2   | 65.8   |

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>.

<sup>a</sup> 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.)

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 natural gas.

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. • 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.