

Appendix C

Changes in Natural Gas Markets

This appendix presents several State summary data tables that detail energy use profiles of the geographic regions covered in this report and the availability of supplemental natural gas supplies. These tables supplement the regional tables in Chapter 5, “Deliverability to Markets.”

The first table, Table C1, “Regional Weather and Gas Storage Profile,” provides some basic data regarding the relative seasonal temperature variation among States (a key determinant of natural gas demand) and levels of underground and liquefied natural gas (LNG) storage. How much gas can be delivered from storage facilities and is available to the pipeline network during peak periods are crucial factors in analyzing the ability of the pipeline system to support estimated consumer requirements.

The second table, Table C2, “Regional and State Energy Profile Comparison of Annual Average Change,” shows total energy consumption patterns for each of the lower 48 States, in particular how the use of natural gas increased (decreased) relative to all other fuel types between 1990 and 1995. The third table, Table C3, “Regional and State Natural Gas Customer Market Share Changes,” illustrates how the use of natural gas among the various natural gas customer sectors within each State has changed since 1990.

These changes reflect the shifts in consumption patterns that have occurred as a result of market restructuring at both the national and local levels. They also reflect changes in market demand as a result of changes in a State’s economic profile during the past several years.

Lastly, Table C4, “Regional and State Natural Gas Customers, Average Annual Growth” supplements Table C3 by providing data on the number of natural gas consumers for each end-use sector in 1996 and the average annual growth rate from 1990 through 1996. The change in these factors underlies the level and magnitude of the movements reflected in the market shares for natural gas customer groups.

Most of the annual data used to compile the annual average rates of change shown in these tables may be found in the following Energy Information Administration publications: the *Natural Gas Annual*, the *Electric Power Annual*, or the *State Energy Data Report (SEDS)*. While the period of comparison, for the most part, was for the years 1990 through 1996, in some instances data were not yet available for 1996. Specifically, the SEDS data, which tabulate all annual energy use data on a common (Btu) basis, are not compiled until all individual fuel data are verified and complete; they were available only through 1995 when this report was prepared.

Table C1. Regional Weather and Gas Storage Profile, 1996

| Region | Number of Interstate Pipelines Operating in State | Normal Heating Degree Days (1960-1990) | Weather Ranking Among States (1 = Coldest) | Natural Gas Underground Storage - 1996 | | | | | | | LNG Peaking Supplies 1996 | |
|------------------|---|--|--|--|---|-------------------------------------|--|--------------------------------------|----------------------------------|-----------------|---------------------------|--------------------------------|
| | | | | Working Gas Capacity (MMcf) | Peak-Day Withdrawal Capability (Deliverability) | | | | | Capacity (MMcf) | Peak-Day Support (MMcf/d) | |
| | | | | | Total (MMcf/d) | From Conventional Storage (percent) | From High-Deliverability Storage (percent) | Percent Interstate Pipeline Operated | Percent Operated by Independents | | | Percent LDC Owned and Operated |
| Central | | | | | | | | | | | | |
| Colorado | 9 | 7,123 | 10 | 52,261 | 1,112 | 100 | 0 | 76 | 0 | 23 | -- | -- |
| Iowa | 4 | 6,932 | 12 | 74,100 | 1,000 | 100 | 0 | 100 | 0 | 0 | 3,843 | 364 |
| Kansas | 9 | 4,988 | 29 | 109,291 | 2,409 | 93 | 7 | 88 | 8 | 4 | -- | -- |
| Missouri | 8 | 5,091 | 28 | 9,526 | 350 | 100 | 0 | 0 | 0 | 100 | -- | -- |
| Montana | 5 | 8,260 | 3 | 207,622 | 283 | 100 | 0 | 40 | 0 | 60 | -- | -- |
| Nebraska | 6 | 6,435 | 15 | 7,962 | 101 | 100 | 0 | 100 | 0 | 0 | 1,078 | 52 |
| North Dakota | 3 | 9,481 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| South Dakota | 3 | 7,714 | 7 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Utah | 4 | 6,555 | 14 | 59,880 | 520 | 100 | 0 | 99 | 0 | 1 | -- | -- |
| Wyoming | 6 | 8,023 | 4 | 45,251 | 261 | 100 | 0 | 86 | 0 | 14 | -- | -- |
| Total | 21 | 7,061 | 1 | 565,894 | 6,037 | 97 | 3 | 81 | 3 | 16 | 4,921 | 416 |
| Midwest | | | | | | | | | | | | |
| Illinois | 9 | 6,175 | 17 | 246,771 | 6,435 | 100 | 0 | 29 | 0 | 71 | 1,063 | 259 |
| Indiana | 7 | 5,871 | 23 | 41,034 | 757 | 100 | 0 | 17 | 0 | 83 | 10,287 | 797 |
| Michigan | 6 | 6,823 | 13 | 633,912 | 11,964 | 99 | 1 | 33 | 13 | 54 | -- | -- |
| Minnesota | 5 | 8,771 | 2 | 2,377 | 60 | 100 | 0 | 0 | 0 | 100 | 5,412 | 1,520 |
| Ohio | 9 | 5,897 | 21 | 206,379 | 4,782 | 100 | 0 | 40 | 0 | 60 | -- | -- |
| Wisconsin | 5 | 7,665 | 8 | -- | -- | -- | -- | -- | -- | -- | 960 | 109 |
| Total | 17 | 6,867 | 2 | 1,130,475 | 24,000 | 99 | 1 | 33 | 6 | 61 | 17,722 | 2,685 |
| Northeast | | | | | | | | | | | | |
| Connecticut | 3 | 6,146 | 18 | -- | -- | -- | -- | -- | -- | -- | 2,394 | 130 |
| Delaware | 3 | 4,784 | 31 | -- | -- | -- | -- | -- | -- | -- | 265 | 43 |
| Maine | 1 | 7,945 | 6 | -- | -- | -- | -- | -- | -- | -- | 14 | 48 |
| Maryland/DC | 5 | 4,811 | 30 | 15,322 | 306 | 100 | 0 | 100 | 0 | 0 | 1,055 | 215 |
| Massachusetts | 3 | 6,322 | 16 | -- | -- | -- | -- | -- | -- | -- | 11,559 | 952 |
| New Hampsh. | 1 | 7,599 | 9 | -- | -- | -- | -- | -- | -- | -- | 400 | 50 |
| New Jersey | 5 | 5,424 | 25 | -- | -- | -- | -- | -- | -- | -- | 8,822 | 736 |
| New York | 12 | 5,943 | 20 | 82,889 | 1,094 | 92 | 8 | 83 | 9 | 8 | 3,399 | 524 |
| Pennsylvania | 9 | 5,881 | 22 | 378,016 | 7,022 | 100 | 0 | 94 | 0 | 6 | 625 | 540 |
| Rhode Island | 2 | 5,968 | 19 | -- | -- | -- | -- | -- | -- | -- | 2,324 | 128 |
| Vermont | 2 | 7,979 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Virginia | 4 | 4,327 | 34 | 1,930 | 55 | 27 | 73 | 72 | 28 | 0 | 922 | 393 |
| West Virginia | 5 | 5,250 | 27 | 191,684 | 3,223 | 100 | 0 | 96 | 0 | 4 | -- | -- |
| Total | 15 | 6,029 | 3 | 669,842 | 11,701 | 98 | 2 | 94 | 0 | 6 | 31,765 | 3,759 |
| Southeast | | | | | | | | | | | | |
| Alabama | 9 | 2,828 | 40 | 2,090 | 260 | 0 | 100 | 0 | 0 | 100 | 2,207 | 344 |
| Florida | 3 | 720 | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Georgia | 4 | 2,788 | 41 | -- | -- | -- | -- | -- | -- | -- | 10,756 | 1,122 |
| Kentucky | 9 | 4,544 | 33 | 113,467 | 1,725 | 100 | 0 | 67 | 1 | 32 | -- | -- |
| Mississippi | 14 | 2,510 | 44 | 56,860 | 3,220 | 32 | 68 | 77 | 20 | 3 | -- | -- |
| North Carolina | 1 | 3,481 | 38 | -- | -- | -- | -- | -- | -- | -- | 6,391 | 701 |
| South Carolina | 2 | 2,743 | 42 | -- | -- | -- | -- | -- | -- | -- | 1,296 | 162 |
| Tennessee | 9 | 3,954 | 36 | 1,300 | 15 | 100 | 0 | 0 | 100 | 0 | 4,394 | 512 |
| Total | 18 | 2,946 | 6 | 173,717 | 5,220 | 53 | 47 | 70 | 13 | 17 | 25,044 | 2,841 |
| Southwest | | | | | | | | | | | | |
| Arkansas | 10 | 3,327 | 39 | 19,820 | 239 | 100 | 0 | 0 | 0 | 100 | 188 | 57 |
| Louisiana | 21 | 1,794 | 47 | 290,110 | 5,853 | 69 | 31 | 76 | 14 | 10 | 6,300 | 600 |
| New Mexico | 4 | 4,756 | 32 | 71,958 | 314 | 100 | 0 | 79 | 0 | 21 | -- | -- |
| Oklahoma | 12 | 3,571 | 37 | 156,737 | 2,742 | 100 | 0 | 47 | 9 | 43 | -- | -- |
| Texas | 29 | 2,035 | 46 | 443,906 | 11,351 | 42 | 58 | 17 | 42 | 41 | 100 | 12 |
| Total | 35 | 3,096 | 5 | 982,532 | 20,500 | 59 | 41 | 38 | 29 | 33 | 6,588 | 669 |
| Western | | | | | | | | | | | | |
| Arizona | 2 | 2,313 | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| California | 8 | 2,703 | 43 | 222,276 | 6,470 | 100 | 0 | 0 | 0 | 100 | 700 | 150 |
| Idaho | 2 | 6,935 | 11 | -- | -- | -- | -- | -- | -- | -- | 639 | 52 |
| Nevada | 4 | 4,263 | 35 | -- | -- | -- | -- | -- | -- | -- | 1,160 | 162 |
| Oregon | 2 | 5,255 | 26 | 6,726 | 100 | 100 | 0 | 0 | 0 | 100 | 1,736 | 190 |
| Washington | 4 | 5,637 | 24 | 15,203 | 550 | 100 | 0 | 0 | 0 | 100 | 2,545 | 257 |
| Total | 10 | 4,517 | 4 | 244,206 | 7,120 | 100 | 0 | 0 | 0 | 100 | 6,780 | 811 |
| U.S.Total | -- | -- | -- | 3,766,666 | 74,578 | 85 | 15 | 70 | 13 | 17 | 92,820 | 11,181 |

MMcf/d = Million cubic feet per day. LDC = Local distribution company. -- = Not applicable.

Sources: **Normal Heating Degree Days:** U.S. Department of Commerce, National Oceanic and Atmospheric Administration, "State Regional, and National Monthly and Seasonal Heating Degree Days Weighted by Population." **Natural Gas Underground Storage:** Energy Information Administration (EIA), Form EIA-191, "Underground Gas Storage Report." **Liquefied Natural Gas (LNG):** EIAGIS-NG Geographic Information System, LNG Database, as of December 1997.

Table C2. Regional and State Energy Profile Comparison of Annual Average Change, 1990-1995

| Region / State | Population | | Overall Energy Consumption | | | Natural Gas Consumption | | | | Natural Gas Production (1996) as a Ratio of Consumption |
|-------------------|------------------------------|-----------------------|------------------------------|-------------------|-----------------------|-------------------------------------|------------------------------|-------------------------------------|-----------------------|---|
| | Millions in 1995 (estimated) | Percent Annual Change | Quantity 1995 (trillion Btu) | U.S. Ranking 1995 | Percent Annual Change | As Percent of Total Energy Consumed | Quantity 1995 (trillion Btu) | U.S. Ranking (Percent Gas to Total) | Percent Annual Change | |
| Central | | | | | | | | | | |
| Colorado | 3,823 | 4.6 | 1,075 | 26 | 3.3 | 27 | 289 | 20 | 3.8 | 2.02 |
| Iowa | 2,852 | 0.8 | 1,067 | 27 | 3.3 | 25 | 264 | 24 | 3.4 | 0.00 |
| Kansas | 2,572 | 1.1 | 1,041 | 31 | 0.9 | 36 | 369 | 16 | 4.4 | 2.21 |
| Missouri | 5,359 | 1.4 | 1,663 | 20 | 2.0 | 17 | 281 | 21 | 3.0 | 0.00 |
| Montana | 879 | 2.9 | 379 | 42 | 1.7 | 16 | 60 | 43 | 4.9 | 0.85 |
| Nebraska | 1,652 | 1.4 | 580 | 36 | 2.2 | 23 | 134 | 36 | 3.6 | 0.01 |
| North Dakota | 644 | 0.3 | 350 | 43 | 2.6 | 14 | 48 | 44 | 8.3 | 1.33 |
| South Dakota | 732 | 1.5 | 236 | 46 | 2.8 | 15 | 35 | 45 | 5.5 | 0.04 |
| Utah | 2,000 | 4.6 | 638 | 35 | 2.1 | 26 | 167 | 31 | 3.8 | 1.79 |
| Wyoming | 481 | 1.8 | 405 | 41 | 0.6 | 26 | 104 | 39 | 3.0 | 8.05 |
| Total | 20,995 | 2.1 | 7,435 | 6 | 2.1 | 24 | 1,749 | 6 | 3.8 | 1.39 |
| Midwest | | | | | | | | | | |
| Illinois | 11,847 | 1.0 | 3,804 | 7 | 0.8 | 29 | 1,100 | 5 | 2.2 | 0.00 |
| Indiana | 5,841 | 1.5 | 2,592 | 10 | 0.7 | 21 | 542 | 11 | 3.5 | 0.00 |
| Michigan | 9,594 | 0.9 | 3,157 | 9 | 0.8 | 31 | 987 | 6 | 3.2 | 0.26 |
| Minnesota | 4,658 | 1.9 | 1,622 | 21 | 2.2 | 22 | 358 | 17 | 3.0 | 0.00 |
| Ohio | 11,173 | 0.8 | 4,038 | 3 | 1.0 | 23 | 930 | 7 | 3.0 | 0.13 |
| Wisconsin | 5,160 | 1.6 | 1,749 | 19 | 2.4 | 22 | 385 | 13 | 3.8 | 0.00 |
| Total | 48,272 | 1.2 | 16,963 | 3 | 1.1 | 25 | 4,302 | 2 | 2.9 | 0.08 |
| Northeast | | | | | | | | | | |
| Connecticut | 3,274 | -0.1 | 786 | 34 | 0.9 | 17 | 136 | 35 | 5.3 | 0.00 |
| Delaware | 725 | 2.5 | 264 | 45 | 2.2 | 24 | 63 | 42 | 6.1 | 0.00 |
| Maine | 1,243 | 0.3 | 513 | 39 | 1.3 | 1 | 6 | 48 | 4.1 | 0.00 |
| Maryland/DC | 5,615 | 1.2 | 1,490 | 23 | 0.8 | 16 | 232 | 27 | 1.7 | 0.00 |
| Massachusetts | 6,092 | 0.4 | 1,494 | 22 | 1.1 | 25 | 372 | 15 | 6.8 | 0.00 |
| New Hampshire | 1,162 | 1.4 | 285 | 44 | 0.6 | 7 | 20 | 46 | 8.8 | 0.00 |
| New Jersey | 7,988 | 1.0 | 2,543 | 11 | 2.6 | 24 | 611 | 9 | 8.6 | 0.00 |
| New York | 18,185 | 0.3 | 3,913 | 4 | 0.6 | 30 | 1,172 | 4 | 4.1 | 0.02 |
| Pennsylvania | 12,056 | 0.4 | 3,886 | 5 | 1.2 | 19 | 747 | 8 | 2.0 | 0.19 |
| Rhode Island | 990 | -0.4 | 235 | 47 | 5.1 | 31 | 72 | 40 | 21.4 | 0.00 |
| Vermont | 589 | 1.3 | 150 | 48 | 2.6 | 5 | 7 | 47 | 2.2 | 0.00 |
| Virginia | 6,675 | 2.2 | 2,056 | 15 | 1.4 | 12 | 255 | 25 | 6.3 | 0.21 |
| West Virginia | 1,826 | 0.5 | 819 | 33 | -0.1 | 19 | 157 | 32 | 4.8 | 1.19 |
| Total | 66,421 | 0.7 | 18,433 | 1 | 1.2 | 21 | 3,850 | 3 | 4.9 | 0.10 |
| Southeast | | | | | | | | | | |
| Alabama | 4,273 | 1.6 | 1,933 | 17 | 2.3 | 17 | 331 | 18 | 4.4 | 1.68 |
| Florida | 14,400 | 3.2 | 3,519 | 8 | 1.9 | 15 | 533 | 12 | 3.6 | 0.01 |
| Georgia | 7,353 | 3.9 | 2,512 | 12 | 2.3 | 15 | 380 | 14 | 2.5 | 0.00 |
| Kentucky | 3,884 | 1.5 | 1,770 | 18 | 3.6 | 14 | 246 | 26 | 3.7 | 0.35 |
| Mississippi | 2,716 | 1.6 | 1,059 | 29 | 1.1 | 28 | 296 | 19 | 0.5 | 0.35 |
| North Carolina | 7,323 | 3.1 | 2,328 | 13 | 2.3 | 9 | 209 | 30 | 4.0 | 0.00 |
| South Carolina | 3,699 | 1.7 | 1,401 | 24 | 1.9 | 11 | 156 | 33 | 2.7 | 0.00 |
| Tennessee | 5,320 | 2.6 | 1,975 | 16 | 1.8 | 13 | 265 | 23 | 2.8 | 0.01 |
| Total | 48,967 | 2.7 | 16,497 | 4 | 2.2 | 15 | 2,415 | 5 | 2.9 | 0.28 |
| Southwest | | | | | | | | | | |
| Arkansas | 2,510 | 2.0 | 998 | 32 | 3.0 | 28 | 277 | 22 | 1.6 | 0.78 |
| Louisiana | 4,351 | 0.9 | 3,814 | 6 | 1.4 | 47 | 1,778 | 3 | 0.8 | 3.28 |
| New Mexico | 1,713 | 3.8 | 575 | 37 | -0.4 | 38 | 219 | 29 | -3.3 | 10.98 |
| Oklahoma | 3,301 | 1.4 | 1,360 | 25 | 0.1 | 43 | 580 | 10 | -1.4 | 2.73 |
| Texas | 19,128 | 3.7 | 10,512 | 1 | 1.3 | 38 | 3,943 | 1 | 0.4 | 1.57 |
| Total | 31,003 | 2.9 | 17,258 | 2 | 1.3 | 39 | 6,797 | 1 | 0.2 | 2.25 |
| Western | | | | | | | | | | |
| Arizona | 4,428 | 6.1 | 1,059 | 28 | 2.4 | 12 | 124 | 37 | 1 | 0.00 |
| California | 31,878 | 1.9 | 7,577 | 2 | -0.4 | 26 | 1,956 | 2 | 3 | 0.15 |
| Idaho | 1,189 | 5.2 | 456 | 40 | 2.9 | 14 | 66 | 41 | 6 | 0.00 |
| Nevada | 1,603 | 9.3 | 537 | 38 | 5.7 | 21 | 115 | 38 | 13 | 0.00 |
| Oregon | 3,204 | 3.6 | 1,048 | 30 | 0.6 | 15 | 152 | 34 | 8 | 0.01 |
| Washington | 5,533 | 3.8 | 2,159 | 14 | 0.3 | 11 | 229 | 28 | 7 | 0.00 |
| Total | 47,835 | 2.9 | 12,836 | 5 | 0.3 | 21 | 2,642 | 4 | 4 | 0.11 |
| U.S. Total | 263,493 | 1.9 | 89,422 | -- | 1.3 | 24 | 21,753 | -- | 3 | 0.88 |

-- = Not applicable.

Sources: **Natural Gas Production and Consumption:** Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." **Energy Consumption:** EIA, *State Energy Data Report, Consumption Estimates 1980-1995* (December 1997). **Population:** U.S. Department of Commerce, Bureau of the Census.

Table C3. Regional and State Natural Gas Customer Market Share Changes, 1990-1996

| Region / State | 1996 Share of the Natural Gas Market (percent) | | | | | Share Change Since 1990 (percentage point) | | | | | Average Annual Change in Consumption (percent) | | | | |
|-------------------|---|------------|------------|--------------------|-----------|---|------------|------------|--------------------|-----------|---|-------------|------------|--------------------|-------------|
| | Residential | Commercial | Industrial | Electric Utilities | Other | Residential | Commercial | Industrial | Electric Utilities | Other | Residential | Commercial | Industrial | Electric Utilities | Other |
| Central | | | | | | | | | | | | | | | |
| Colorado | 36 | 22 | 27 | 2 | 12 | -2 | -5 | 7 | -1 | 1 | 3.3 | 0.6 | 9.6 | 0.7 | 6.6 |
| Iowa | 32 | 20 | 42 | 1 | 5 | a | a | 0 | 0 | a | 3.7 | 3.8 | 4.0 | 0.7 | 6.0 |
| Kansas | 24 | 16 | 30 | 6 | 24 | 3 | a | -3 | -1 | 1 | 3.2 | 0.3 | -1.6 | -10.8 | 1.4 |
| Missouri | 47 | 25 | 24 | 2 | 3 | -2 | a | 1 | 0 | a | 3.0 | 3.7 | 4.8 | -6.0 | 19.7 |
| Montana | 36 | 24 | 29 | 1 | 9 | -3 | -4 | 8 | a | -1 | 5.0 | 3.6 | 12.0 | 6.2 | 5.7 |
| Nebraska | 37 | 31 | 27 | 2 | 3 | -1 | -2 | 4 | -2 | a | 3.0 | 1.9 | 6.9 | -10.7 | 4.3 |
| North Dakota | 26 | 25 | 16 | a | 33 | -3 | -7 | 3 | a | 7 | 5.6 | 2.9 | 10.8 | 16.7 | 12.6 |
| South Dakota | 38 | 31 | 19 | 2 | 9 | -3 | -3 | -4 | 1 | 8 | 5.7 | 5.4 | 3.8 | 71.0 | 70.0 |
| Utah | 34 | 18 | 26 | 2 | 19 | -3 | 5 | -4 | 1 | 2 | 4.1 | 11.2 | 3.2 | 63.3 | 9.6 |
| Wyoming | 13 | 10 | 50 | 0 | 27 | 1 | 0 | 22 | a | -23 | 2.9 | 2.8 | 14.2 | 4.1 | -11.8 |
| Total | 33 | 22 | 30 | 2 | 14 | a | -1 | 2 | -1 | -1 | 3.5 | 2.8 | 4.6 | -4.3 | 2.3 |
| Midwest | | | | | | | | | | | | | | | |
| Illinois | 48 | 19 | 29 | 2 | 1 | 1 | -2 | -1 | 1 | 0 | 3.4 | 1.5 | 2.7 | 25.2 | 3.0 |
| Indiana | 31 | 15 | 50 | 1 | 2 | a | a | a | -1 | 0 | 4.3 | 3.7 | 4.1 | -9.4 | 6.4 |
| Michigan | 39 | 20 | 34 | 3 | 3 | 1 | -4 | 2 | 1 | 0 | 3.4 | -0.2 | 3.7 | 9.9 | 4.2 |
| Minnesota | 39 | 27 | 28 | 1 | 5 | 2 | a | -3 | a | 1 | 5.0 | 4.1 | 2.6 | 0.3 | 8.7 |
| Ohio | 40 | 20 | 37 | 0 | 2 | a | -1 | 1 | a | 0 | 3.3 | 2.9 | 3.8 | 24.7 | 7.2 |
| Wisconsin | 37 | 23 | 37 | 2 | 1 | a | a | -2 | 1 | 0 | 4.5 | 6.0 | 3.5 | 28.0 | 2.8 |
| Total | 40 | 20 | 35 | 2 | 2 | 1 | -1 | a | a | 0 | 3.7 | 2.3 | 3.4 | 10.3 | 5.4 |
| Northeast | | | | | | | | | | | | | | | |
| Connecticut | 34 | 31 | 25 | 8 | 1 | -4 | 1 | -1 | 3 | 1 | 2.8 | 5.5 | 4.5 | b | 21.6 |
| Delaware | 18 | 12 | 26 | 43 | 0 | 0 | 2 | -17 | 16 | 0 | 5.3 | 8.9 | -3.9 | 17.6 | 4.2 |
| Maine | 17 | 45 | 38 | a | 0 | 2 | 6 | -8 | a | a | 7.1 | 7.5 | 1.3 | 0.0 | 0.0 |
| Maryland/DC | 45 | 27 | 22 | 4 | 1 | 5 | 9 | -9 | -5 | a | 4.0 | 13.0 | -4.2 | -18.3 | 1.4 |
| Massachusetts | 32 | 27 | 28 | 13 | 1 | -9 | 7 | 11 | -9 | a | 1.2 | 11.9 | 15.5 | -3.1 | 9.9 |
| New Hampshire | 37 | 37 | 26 | 0 | 0 | -5 | 2 | 3 | a | a | 3.1 | 5.9 | 7.2 | 0.0 | b |
| New Jersey | 37 | 25 | 33 | 4 | 1 | -3 | -2 | 12 | -7 | 0 | 4.6 | 4.5 | 16.6 | -14.8 | 3.1 |
| New York | 36 | 22 | 29 | 13 | 1 | -3 | a | 17 | -13 | 0 | 3.1 | 4.5 | 21.6 | -10.0 | 8.5 |
| Pennsylvania | 38 | 21 | 33 | 1 | 6 | 1 | 2 | -3 | 1 | 0 | 2.6 | 3.6 | 0.6 | 18.4 | 1.5 |
| Rhode Island | 23 | 15 | 31 | 30 | 1 | -34 | 3 | 17 | 13 | 0 | 1.1 | 27.8 | 87.1 | b | 40.3 |
| Vermont | 34 | 39 | 27 | 0 | 0 | 3 | 8 | -1 | -10 | a | 2.9 | 5.6 | 0.7 | b | 13.5 |
| Virginia | 32 | 25 | 35 | 4 | 4 | 3 | 2 | -6 | 1 | 0 | 6.9 | 6.4 | 2.0 | 11.1 | 3.4 |
| West Virginia | 24 | 18 | 32 | 0 | 25 | -3 | a | -8 | a | 10 | 2.4 | 4.8 | 0.6 | 7.4 | 15.5 |
| Total | 35 | 23 | 30 | 8 | 3 | -3 | 2 | 6 | -5 | a | 3.3 | 5.6 | 8.4 | -4.7 | 6.2 |
| Southeast | | | | | | | | | | | | | | | |
| Alabama | 17 | 9 | 62 | 2 | 10 | -1 | -1 | 2 | a | a | 3.8 | 3.1 | 5.7 | 11.8 | 5.4 |
| Florida | 3 | 9 | 28 | 58 | 2 | -1 | -3 | 2 | 1 | a | 4.0 | 2.4 | 8.7 | 9.8 | 11.1 |
| Georgia | 33 | 16 | 47 | 1 | 2 | 4 | a | -5 | 1 | 0 | 6.0 | 3.7 | 2.0 | 78.1 | 2.5 |
| Kentucky | 30 | 17 | 40 | 1 | 12 | -1 | a | 3 | 1 | -3 | 3.9 | 4.3 | 5.6 | 47.2 | 0.5 |
| Mississippi | 11 | 8 | 30 | 31 | 20 | 1 | 1 | -10 | 5 | 2 | 3.2 | 4.1 | -3.9 | 8.7 | 2.8 |
| North Carolina | 28 | 19 | 49 | 1 | 3 | 6 | a | -5 | 0 | 0 | 9.2 | 4.5 | 3.3 | 2.3 | 3.0 |
| South Carolina | 20 | 14 | 64 | 1 | 2 | 6 | 2 | -3 | -5 | 0 | 8.3 | 4.8 | 1.7 | b | 1.7 |
| Tennessee | 25 | 21 | 45 | a | 9 | 4 | 1 | -5 | a | a | 7.4 | 5.2 | 2.5 | 14.7 | 4.1 |
| Total | 20 | 13 | 44 | 16 | 7 | 2 | 0 | -3 | 2 | a | 5.8 | 4.0 | 3.2 | 8.3 | 3.1 |
| Southwest | | | | | | | | | | | | | | | |
| Arkansas | 17 | 11 | 52 | 13 | 7 | 0 | 1 | 0 | -1 | 0 | 3.0 | 3.8 | 2.8 | 1.2 | 1.5 |
| Louisiana | 3 | 2 | 63 | 15 | 17 | a | a | 5 | -2 | -3 | 1.0 | 0.6 | 2.4 | -1.3 | -2.2 |
| New Mexico | 15 | 12 | 10 | 14 | 49 | 3 | 2 | 2 | 3 | -10 | 3.2 | 1.9 | 2.9 | 2.9 | -4.9 |
| Oklahoma | 14 | 8 | 35 | 24 | 19 | 3 | 2 | 3 | -4 | -4 | 2.8 | 3.8 | 0.5 | -3.8 | -4.6 |
| Texas | 6 | 4 | 54 | 26 | 10 | a | a | 6 | -2 | -4 | 1.4 | 0.5 | 3.9 | 0.6 | -4.2 |
| Total | 7 | 5 | 53 | 22 | 14 | a | a | 6 | -2 | -4 | 1.9 | 1.4 | 3.2 | -0.1 | -3.6 |
| Western | | | | | | | | | | | | | | | |
| Arizona | 23 | 24 | 22 | 16 | 14 | 0 | 1 | 8 | -3 | -6 | -0.4 | 0.4 | 6.9 | -5.1 | -6.9 |
| California | 26 | 13 | 38 | 18 | 5 | -1 | -2 | 8 | -7 | 2 | -1.5 | -3.6 | 3.6 | -7.4 | 24.6 |
| Idaho | 22 | 17 | 52 | a | 9 | 3 | -2 | a | a | -2 | 10.3 | 5.4 | 6.9 | 0.0 | 2.9 |
| Nevada | 18 | 17 | 26 | 38 | 1 | -8 | -7 | 15 | 0 | a | 4.9 | 5.3 | 37.1 | 13.1 | -5.2 |
| Oregon | 20 | 15 | 52 | 8 | 8 | -2 | -4 | 7 | 2 | -4 | 6.7 | 4.2 | 10.5 | 13.4 | -3.0 |
| Washington | 26 | 20 | 48 | 3 | 3 | 1 | -4 | 0 | 3 | 0 | 8.1 | 3.9 | 6.7 | b | 5.6 |
| Total | 25 | 15 | 39 | 16 | 5 | -2 | -2 | 8 | -6 | 1 | 0.0 | -1.2 | 5.0 | -4.6 | 9.6 |
| Total U.S. | 24 | 15 | 41 | 13 | 8 | 1 | a | 3 | -2 | -1 | 3.0 | 2.8 | 4.0 | -0.4 | -0.5 |

aBetween plus 0.5 percent and minus 0.5 percent.

bOver plus or minus 100 percent per annum. Result very large (small) due to large fluctuations in annual volumes reported in this category.

Note: Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table C4. Regional and State Natural Gas Customers, Average Annual Growth, 1990-1996

| Region | Residential Customers | | | Commercial Firms | | | Industrial Firms | | | Electric Utilities | | | |
|-------------------|-----------------------|----------------------------|----------------------|----------------------|----------------------------|----------------------|----------------------|----------------------------|----------------------|---|---|--------------------------------|-----------------------------|
| | Number in 1996 | Annual Change (percent) | | Number in 1996 | Annual Change (percent) | | Number in 1996 | Annual Change (percent) | | Annual Change ¹ (percent) | | | |
| | | In Number of Users | In Average Use | | In Number of Users | In Average Use | | In Number of Users | In Average Use | In Number of All Type Units | In Number of Gas- Fired Units | In Total Summer Capacity | In Gas Fired Capacity |
| Central | | | | | | | | | | | | | |
| Colorado | 1,147,743 | 2.6 | 0.6 | 121,221 | 1.2 | -0.6 | 2,099 | 13.8 | -3.4 | -1.3 | -0.8 | 0.5 | 1.3 |
| Iowa | 771,109 | 1.5 | 2.1 | 89,663 | 1.3 | 2.4 | 2,066 | 1.6 | 2.4 | -2.8 | -5.0 | -15.3 | -9.4 |
| Kansas | 804,213 | 1.2 | 1.9 | 89,168 | 0.7 | -0.4 | 2,988 | -6.6 | 7.7 | -1.3 | -1.1 | 0.2 | -0.5 |
| Missouri | 1,275,465 | 0.8 | 2.0 | 133,445 | 4.1 | -0.6 | 3,408 | 1.5 | 3.3 | 0.3 | 0.3 | 0.9 | 7.2 |
| Montana | 205,199 | 2.8 | 2.0 | 26,374 | 2.1 | 1.3 | 466 | 0.3 | 11.6 | -1.1 | 0.0 | 0.1 | 0.0 |
| Nebraska | 439,931 | 1.3 | 1.6 | 61,117 | 0.2 | 1.6 | 2,234 | 36.0 | -23.4 | -0.9 | 1.2 | 0.6 | 2.3 |
| North Dakota | 97,761 | 2.2 | 3.2 | 13,789 | 1.3 | 1.6 | 206 | 3.8 | 6.6 | -2.8 | 0.0 | -1.2 | 0.0 |
| South Dakota | 127,269 | 3.3 | 2.3 | 16,880 | 4.0 | 1.3 | 444 | 8.4 | -4.9 | -6.1 | 1.1 | 1.7 | 30.9 |
| Utah | 562,343 | 3.7 | 0.2 | 40,107 | 2.5 | 8.4 | 923 | -11.1 | 23.0 | 2.1 | 4.6 | 0.4 | -2.2 |
| Wyoming | 131,910 | 2.6 | 0.3 | 17,036 | 3.7 | -1.0 | 170 | -9.9 | 25.6 | 1.6 | 33.3 | 0.5 | 18.7 |
| Total | 5,562,943 | 1.8 | 1.5 | 608,800 | 1.9 | 0.8 | 15,004 | 1.5 | 3.2 | -1.3 | -1.0 | -0.5 | 1.2 |
| Midwest | | | | | | | | | | | | | |
| Illinois | 3,494,545 | 1.0 | 2.3 | 265,007 | 0.5 | 1.0 | 29,493 | 2.2 | 0.5 | -2.3 | -1.1 | 0.2 | 14.0 |
| Indiana | 1,489,647 | 1.9 | 2.3 | 139,097 | 1.8 | 1.8 | 6,586 | 0.4 | 3.7 | 0.5 | 1.2 | 0.1 | 1.0 |
| Michigan | 2,812,876 | 1.5 | 1.9 | 214,843 | 1.6 | -1.8 | 11,848 | 0.5 | 3.2 | -0.6 | 4.3 | -0.2 | 22.3 |
| Minnesota | 1,103,709 | 2.6 | 2.3 | 105,531 | 1.7 | 2.3 | 2,564 | -0.1 | 2.7 | -0.4 | -2.6 | 0.7 | -15.8 |
| Ohio | 2,994,891 | 1.3 | 2.0 | 259,663 | 1.8 | 1.1 | 8,672 | 0.7 | 3.0 | 0.1 | 2.1 | 0.2 | 10.5 |
| Wisconsin | 1,324,570 | 2.8 | 1.6 | 129,146 | 3.3 | 2.6 | 5,861 | -3.6 | 7.3 | -0.1 | 2.3 | 2.0 | 20.7 |
| Total | 13,220,238 | 1.6 | 2.0 | 1,113,287 | 1.6 | 0.7 | 65,024 | 0.8 | 2.6 | -0.6 | 0.3 | 0.3 | 8.0 |
| Northeast | | | | | | | | | | | | | |
| Connecticut | 433,778 | 0.2 | 2.6 | 47,055 | 0.6 | 4.9 | 3,435 | 2.4 | 1.4 | -2.8 | 30.6 | -2.1 | 11.7 |
| Delaware | 106,548 | 3.1 | 2.1 | 9,518 | 4.1 | 4.6 | 250 | 0.7 | -4.6 | -0.6 | 4.9 | 2.3 | 4.3 |
| Maine | 14,982 | 3.8 | 3.1 | 6,414 | 7.1 | 0.2 | 87 | 1.8 | 0.0 | -0.2 | 0.0 | -0.1 | 0.0 |
| Maryland/DC | 1,006,227 | 1.7 | 2.3 | 80,943 | 3.3 | 5.9 | 430 | -167.6 | 125.7 | -1.4 | 6.7 | 1.8 | 6.9 |
| Massachusetts | 1,188,317 | 1.0 | 0.2 | 105,889 | 0.9 | 11.6 | 10,952 | 11.5 | 8.2 | -1.3 | -0.5 | -1.6 | 9.1 |
| New Hampsh. | 75,175 | 2.4 | 0.6 | 12,755 | 3.3 | 2.5 | 367 | 0.2 | 7.2 | -3.1 | 16.7 | -0.9 | 34.6 |
| New Jersey | 2,147,622 | 1.3 | 3.1 | 224,749 | 0.5 | 4.0 | 10,139 | 10.8 | 4.8 | -2.5 | 0.0 | 0.1 | 1.8 |
| New York | 4,048,166 | 0.6 | 2.5 | 315,855 | 2.0 | 2.5 | 15,300 | -9.7 | 33.3 | -2.0 | -1.4 | -0.5 | 3.6 |
| Pennsylvania | 2,431,909 | 0.8 | 1.7 | 214,340 | 2.3 | 1.2 | 6,441 | 0.5 | -0.1 | -1.0 | 3.4 | 4.0 | 41.3 |
| Rhode Island | 204,259 | 0.8 | 0.3 | 21,664 | 3.5 | 23.6 | 363 | -33.6 | 118.7 | -8.8 | -25.0 | 20.2 | 37.1 |
| Vermont | 24,383 | 4.9 | -2.2 | 3,790 | 4.3 | 1.3 | 27 | 11.2 | -10.3 | 1.5 | -- | 0.4 | 1.1 |
| Virginia | 789,985 | 4.0 | 2.7 | 77,284 | 3.3 | 3.1 | 2,822 | 28.2 | -25.9 | 3.0 | -0.8 | 1.4 | -10.8 |
| West Virginia | 358,049 | 0.4 | 2.0 | 33,837 | 0.5 | 4.3 | 182 | 0.0 | 0.9 | -3.2 | -- | 0.0 | -- |
| Total | 12,829,400 | 1.1 | 2.1 | 1,154,093 | 1.8 | 3.8 | 50,795 | -1.5 | 9.7 | -1.1 | 0.4 | 0.1 | 4.4 |
| Southeast | | | | | | | | | | | | | |
| Alabama | 766,322 | 1.9 | 1.9 | 62,064 | 1.5 | 1.6 | 2,512 | 0.6 | 5.1 | 1.1 | 10.8 | 0.6 | 6.5 |
| Florida | 521,674 | 2.2 | 1.7 | 47,578 | 1.5 | 0.9 | 517 | 2.2 | 6.1 | -0.2 | 2.0 | 2.1 | 1.7 |
| Georgia | 1,538,458 | 2.4 | 3.4 | 123,200 | 2.2 | 1.4 | 3,310 | 0.8 | 1.1 | 0.3 | 8.7 | 1.6 | 19.5 |
| Kentucky | 696,989 | 1.8 | 1.9 | 76,079 | 2.1 | 2.2 | 1,633 | 0.9 | 4.6 | 0.2 | 5.1 | 0.1 | 24.5 |
| Mississippi | 418,442 | 1.5 | 1.7 | 46,029 | 1.1 | 3.0 | 1,241 | -1.0 | -2.9 | 0.3 | 0.4 | 0.4 | 2.6 |
| North Carolina | 699,159 | 5.1 | 3.9 | 93,504 | 5.5 | -1.0 | 3,973 | 6.6 | -3.1 | -1.2 | 8.9 | 0.6 | 23.8 |
| South | 426,088 | 3.9 | 4.1 | 48,650 | 3.4 | 1.4 | 1,759 | 4.3 | -2.6 | 1.5 | 2.2 | 2.6 | 1.3 |
| Tennessee | 841,232 | 5.0 | 2.2 | 103,867 | 2.7 | 2.4 | 2,306 | -0.4 | 2.9 | -0.7 | -- | 0.3 | -2.0 |
| Total | 5,908,364 | 2.9 | 2.7 | 600,971 | 2.6 | 1.3 | 17,251 | 1.9 | 1.4 | 0.1 | 3.2 | 1.2 | 4.2 |
| Southwest | | | | | | | | | | | | | |
| Arkansas | 539,952 | 1.7 | 1.2 | 67,293 | 1.5 | 2.2 | 1,486 | 1.1 | 1.8 | 0.2 | -2.4 | 0.0 | -0.1 |
| Louisiana | 945,967 | 0.2 | 0.8 | 62,101 | -0.2 | 0.7 | 1,444 | -1.0 | 3.7 | -0.1 | 0.2 | 0.4 | 1.4 |
| New Mexico | 428,621 | 2.5 | 0.6 | 37,796 | -0.1 | 2.0 | 1,365 | -33.1 | 29.4 | 0.6 | 2.3 | 0.1 | 31.4 |
| Oklahoma | 866,531 | 1.0 | 1.7 | 89,852 | 0.8 | 3.0 | 2,843 | -0.3 | 0.8 | 0.2 | 0.3 | 0.4 | 2.5 |
| Texas | 3,501,853 | 1.3 | 0.0 | 329,287 | 3.5 | -3.3 | 8,796 | -14.2 | 18.1 | -0.2 | -0.4 | 0.7 | 0.5 |
| Total | 6,282,924 | 1.2 | 0.6 | 586,329 | 2.2 | -0.9 | 15,934 | -7.8 | 11.0 | 0.1 | -0.1 | 0.5 | 1.4 |
| Western | | | | | | | | | | | | | |
| Arizona | 689,597 | 2.8 | -3.3 | 49,693 | 0.9 | -0.6 | 534 | 0.3 | 6.6 | 1.0 | 0.3 | 0.3 | 0.9 |
| California | 8,969,308 | 0.9 | -2.4 | 408,294 | -0.3 | -3.3 | 36,613 | -4.0 | 7.5 | 0.5 | 0.8 | 0.2 | -0.3 |
| Idaho | 187,756 | 8.7 | 1.0 | 25,271 | 4.5 | 0.7 | 183 | 22.9 | -15.6 | -0.9 | -- | 1.9 | -- |
| Nevada | 393,783 | 7.5 | -2.7 | 26,613 | 4.3 | 0.9 | 121 | 3.3 | 32.7 | 1.1 | 5.6 | 2.3 | 3.0 |
| Oregon | 433,638 | 5.0 | 1.5 | 57,613 | 3.5 | 0.6 | 799 | 2.4 | 8.2 | 0.2 | 2.1 | -1.2 | 5.6 |
| Washington | 673,357 | 6.6 | 1.0 | 73,708 | 4.0 | -0.3 | 3,587 | 0.8 | 5.9 | -0.1 | -4.2 | -1.1 | -1.0 |
| Total | 11,347,439 | 1.7 | -1.7 | 641,192 | 0.9 | -2.1 | 41,837 | -3.4 | 8.4 | 0.3 | 0.9 | 0.1 | 0.3 |
| Total U.S. | 55,151,308 | 1.6 | 1.4 | 4,704,672 | 1.8 | 1.0 | 205,847 | -1.0 | 5.1 | -0.5 | 0.3 | 0.3 | 2.5 |

¹Includes both primary and secondary generating units.

-- = Not applicable.

Source: **Natural Gas Usage:** Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." **Electric Generation Capacity:** EIA, Form EIA-860, "Annual Electric Generation Report," 1990 through 1996.

