Table CT1. Energy Consumption Estimates for Major Energy Sources in Physical Units, Selected Years, 1960-2014, Michigan

|  |  |  |  |   |   | Petroleum  |   |   |  |  |  |   |
|--|--|--|--|---|---|--|---|---|--|--|--|---|
|  | Coal   | Natural<br>Gas <sup>a</sup>            | Distillate<br>Fuel Oil   | Jet<br>Fuel <sup>b</sup>  | LPG °   | Motor<br>Gasoline <sup>d</sup>   | Residual<br>Fuel Oil  | Other <sup>e</sup>  | Total  | Nuclear<br>Electric Power  | Hydro-<br>electric<br>Power <sup>f</sup>   | Fuel<br>Ethanol <sup>9</sup>  |
| Year   | Thousand<br>Short Tons   | Billion<br>Cubic Feet                  |  |   |   | Thousand Barrels   |   |   |  | Million Kilo   | watthours                                  | Thousand Barrels  |
| 1960   | 25,930<br>33,132<br>34,065<br>34,556   | 370                                    | 30,235<br>30,287<br>38,141<br>41,724<br>47,365<br>46,932   | 3,369<br>4,377<br>7,365   | 2,827<br>3,716<br>6,202<br>6,755<br>7,993<br>8,092  | 65,782<br>78,044<br>96,831   | 11,840  | 14,867  | 128,920<br>144,653<br>174,952<br>181,438<br>196,393<br>204,784   | 0  | 2,030                                      | NA  |
| 1965<br>1970   | 33,132   | 556<br>809                             | 30,287   | 4,377   | 3,716   | 78,044   | 8,594<br>10,056   | 19,635  | 144,653  | 181<br>375   | 1,813                                      | NA  |
| 1970   | 34,065   | 809                                    | 38,141   | 7,365   | 6,202   | 96,831   | 10,056  | 19,635<br>16,357<br>15,051  | 1/4,952  | 3/5  | 1,704<br>1,776                             | NA  |
| 1971<br>1972   | 34,556   | 851<br>865                             | 41,724   | 7,195   | 6,755<br>7,000  | 99,540   | 11,173  | 15,051  | 181,438  | 388<br>2,125   | 1,776<br>1,793                             | NA<br>NA  |
| 1972   | 34,666<br>32,632   | 920                                    | 47,300<br>46,032   | 6,905<br>6,959  | 7,993<br>8,002  | 105,198<br>110,100   | 13,078<br>15,822  | 15,855<br>16,879  | 190,393<br>204 784   | 2,125  | 1,793                                      | NA<br>NA  |
| 1974   | 29,804   | 936                                    | 43 673   | 6 460   | 7 845   | 107.057  | 16 692  | 15,629  | 197 356  | 416  | 1,182                                      | NA<br>NA  |
| 1975   | 31.198   | 884                                    | 43,673<br>42,170<br>44,130<br>44,829   | 6,460<br>5,776<br>5,735<br>6,290  | 7,845<br>7,475<br>8,748   | 107,057<br>108,255<br>113,506  | 18,291<br>21,102<br>22,126  | 14,433  | 197,356<br>196,401   | 7,176  | 1,110                                      | NA  |
| 1976   | 29.763   | 884<br>888                             | 44.130   | 5.735   | 8.748   | 113.506  | 21.102  | 14,433<br>15,547  | 208,766  | 9.901  | 1,050                                      | NA  |
| 1977   | 31,198<br>29,763<br>28,926   | 741                                    | 44,829   | 6,290   | 8.793   | 114 812  | 22,126  | 16.669  | 213 518  | 10.231   | 931  | NA  |
| 1978<br>1979   | 28,519<br>31,570   | 790<br>876<br>865                      | 45,149   | 6,499<br>6,639<br>6,646   | 9,051<br>7,515  | 117,526<br>108,261   | 25,452<br>19,046  | 17,534<br>17,226  | 221,211<br>189,955   | 13,104<br>15,139   | 1,085                                      | NA  |
| 1979   | 31,570   | 876                                    | 31,268   | 6,639   | 7,515   | 108,261  | 19,046  | 17,226  | 189,955  | 15,139   | 1,306                                      | NA  |
| 1980   | 31,110   | 865                                    | 27,643   | 6,646   | 6,736   | 97,025   | 13,289  | 15,192  | 166,531  | 15,891   | 1,200                                      | NA  |
| 1981   | 31,610   | 801<br>748<br>696                      | 26,630   | 6,131   | 5,5/2   | 92,783   | 7,825   | 11,720  | 150,661  | 17,066   | 1,240<br>1,211                             | 184<br>491  |
| 1982<br>1983   | 29,280   | 748                                    | 22,943   | 5,706   | 7,107   | 88,179   | 4,891   | 9,969   | 138,795  | 15,003   | 1,211<br>1,229                             | 1,316   |
| 1983   | 29,047   | 090<br>710                             | 22,170   | 5,892   | 7,150   | 00,040   | 4,404   | 10,797  | 139,125  | 10,383   | 1,229                                      | 1,310   |
| 1904   | 31,412   | 710<br>700                             | 24,913<br>26,024   | 5,963<br>6,570  | 1,523   | 92,932<br>93 117   | 3,110   | 11,290<br>10,387  | 140,700<br>153,761   | 14,070   | 1,071                                      | 1,290   |
| 1986   | 33,793   | 671                                    | 26,024   | 7 129   | 15,690  | 96,447   | 3,761   | 10,367  | 160,701  | 12 257   | 721  | 830   |
| 1987   | 35 865   | 657                                    | 26,614   | 8.371   | 17 656  | 99 154   | 3 316   | 11 802  | 166 913  | 14 389   | 481  | 1 176   |
| 1988   | 35.332   | 718<br>709<br>671<br>657<br>749<br>777 | 28.392   | 8.585   | 17,302  | 102.367  | 4.793   | 15,192<br>11,720<br>9,969<br>10,797<br>11,298<br>10,386<br>11,802<br>11,118                 | 172,559  | 15,691<br>17,066<br>15,003<br>16,383<br>14,078<br>13,452<br>12,257<br>14,389<br>17,808 | 1,229<br>1,071<br>997<br>721<br>481<br>600 | 1,214   |
| 1984<br>1985<br>1986<br>1987<br>1988<br>1989<br>1990<br>1991<br>1992<br>1993<br>1994 | 31,610<br>29,280<br>29,647<br>31,412<br>32,793<br>33,999<br>35,865<br>35,332<br>34,885<br>34,817<br>34,086 | 777                                    | 26,202   | 6,131<br>5,706<br>5,892<br>5,983<br>6,570<br>7,129<br>8,371<br>8,585<br>9,235<br>10,057<br>10,234<br>10,125<br>10,305<br>10,281 | 6,736<br>5,572<br>7,107<br>7,150<br>7,523<br>14,225<br>15,690<br>17,656<br>17,302<br>19,053<br>14,901<br>16,017<br>16,666<br>13,077<br>14,287 | 97,025<br>92,783<br>88,179<br>88,646<br>92,952<br>93,447<br>96,015<br>99,154<br>102,367<br>101,375<br>101,375<br>101,370<br>105,003<br>105,744 | 7,825<br>4,891<br>4,464<br>3,116<br>3,109<br>3,761<br>3,316<br>4,793<br>4,497<br>2,728<br>1,745<br>1,696<br>2,081 | 12,757<br>12,598<br>11,413  | 166,531<br>150,661<br>138,795<br>139,125<br>145,785<br>153,761<br>160,470<br>166,913<br>172,559<br>172,888<br>164,553<br>165,604<br>166,325<br>171,235 | 21,312<br>21,611<br>27,021   | 749<br>1,628<br>1,752                      | 1,295<br>1,032<br>830<br>1,176<br>1,214<br>1,164<br>1,205<br>1,582<br>1,367                           |
| 1990   | 34,817   | 879                                    | 24,357   | 10,057  | 14,901  | 99,913   | 2,728   | 12,598  | 164,553  | 21,611   | 1,628                                      | 1,205   |
| 1991   | 34,086   | 888                                    | 24,820   | 10,234  | 16,017  | 101,375  | 1,745   | 11,413  | 165,604  | 27,021   | 1,752                                      | 1,582   |
| 1992   | 31,781   | 960                                    | 24,830   | 10,125  | 16,666  | 101,370  | 1,696   | 11,637  | 166,325  | 18,849   | 1,782<br>1,762                             | 1,367   |
| 1993   | 31,781<br>32,445<br>35,902   | 879<br>888<br>960<br>919<br>912        | 28,123   | 10,305  | 13,077  | 105,003  | 2,081   | 11,637<br>12,647<br>12,125  | 1/1,235  | 18,849<br>28,525<br>14,144<br>24,448<br>26,829   | 1,762                                      | 1,609   |
| 1994   | 35,902   | 912                                    | 27,536   | 10,281  | 14,287  | 105,744  | 2,172   | 12,125  | 172,145  | 14,144   | 1,660                                      | 1,859   |
| 1995<br>1996   | 36,03 <i>1</i><br>36,058   | 1 027                                  | 27,444<br>28.754   | 0,010   | 14,497<br>18,306  | 110,546<br>110,520   | 1,602<br>1,777  | 13,400<br>12,651  | 176,308<br>181,052   | 24,440<br>26,820   | 1,597<br>1,784                             | 1,219   |
| 1997   | 36 116   | 994                                    | 20,734   | 9,043   | 14,524  | 112 389  | 1,553   | 16,765  | 184 411  | 21,914   | 1,712                                      | 654   |
| 1998   | 38 255   | 876                                    | 29 895   | 9 033   | 13 108  | 114 913  | 2 113   | 16,007  | 185 069  | 12 494   | 1 397                                      | 845   |
| 1999   | 36,037<br>36,958<br>36,116<br>38,255<br>38,510<br>37,294   | 976<br>1,027<br>994<br>876<br>951      | 31.573   | 8,818<br>9,045<br>9,487<br>9,033<br>9,116   | 13,108<br>15,339  | 110,320<br>112,389<br>114,913<br>121,027<br>118,160<br>119,472<br>121,745<br>119,019   | 2,113<br>2,491<br>2,358   | 16,161  | 184,411<br>185,069<br>195,707<br>189,214   | 12,494<br>14,591<br>18,882   | 1,397<br>1,458                             | 1,219<br>514<br>654<br>845<br>956   |
| 2000   | 37,294   | 963                                    | 30,824   | 7,214   | 16.308  | 118,160  | 2,358   | 14.351  | 189,214  | 18,882   | 1.428                                      | 2.267   |
| 2001<br>2002   | 37,730<br>36,413<br>36,973   | 906<br>966<br>925<br>917               | 29,515   | 6,219   | 18,876<br>21,039<br>20,578  | 119,472  | 1,590<br>1,992  | 12,139<br>12,019  | 187,811<br>191,806   | 26,711   | 1,562<br>1,669                             | 1,394<br>2,953  |
| 2002   | 36,413   | 966                                    | 28,994   | 6,016   | 21,039  | 121,745  | 1,992   | 12,019  | 191,806  | 31,087   | 1,669                                      | 2,953   |
| 2003   | 36,973   | 925                                    | 30,344   | 2,695   | 20,578  | 119,019  | 2,153   | 12,800  | 187,589  | 27,954   | 1,386                                      | 3,706   |
| 2004<br>2005<br>2006   | 38,503<br>39,442<br>38,067   | 917                                    | 45,149 31,268 27,643 26,630 22,943 22,176 24,913 26,024 26,989 26,614 28,392 26,202 24,357 24,820 24,830 28,123 27,536 27,444 28,754 29,692 29,895 31,573 30,824 29,515 28,994 30,344 31,139 30,315 29,929 29,371 26,713 25,622 26,443 26,691 25,676 28,591 29,042 | 7,214 6,219 6,016 2,695 3,733 3,431 4,124 5,270 4,641 4,270 3,663 3,213 3,628 3,889 3,981                                       | 20,826<br>23,157<br>15,036<br>16,217<br>12,506<br>11,829  | 118,967<br>119,584<br>118,106  | 2,098<br>2,209  | 13,051<br>12,715  | 189,815<br>191,411<br>179,992  | 26,711<br>31,087<br>27,954<br>30,562<br>32,872<br>29,066                               | 1,540<br>1,462<br>1,520                    | 3,838   |
| 2005   | 39,442   | 914<br>803                             | 30,315   | 3,431   | 23,15/  | 119,584  | 2,209<br>1,201  | 44 505  | 191,411  | 32,872   | 1,462                                      | 3,838<br>5,091<br>5,358<br>6,573<br>9,010<br>10,205<br>9,745<br>9,969<br>10,609<br>R 11,216<br>11,108 |
| 2006   | 20 660   | 803<br>700                             | 29,929   | 4,124<br>5,270  | 15,036  | 116,106  | 1,201<br>1,783  | 11,595  | 1/9,992  | 29,00b   | 1,520<br>1,270                             | 5,358<br>6,572  |
| 2007   | 39,009   | 798<br>780<br>735<br>747<br>776        | 28,371<br>26 713   | 3,270<br>4 641  | 10,217  | 116,106<br>116,059<br>111,410<br>109,703<br>108,436<br>105,871   | 1,703<br>1 <u>4</u> 71  | 11,595<br>12,056<br>9,975<br>R 9,839<br>R 9,994<br>R 9,176<br>R 9,424<br>R 11,121<br>13,071 | 179,992<br>180,757<br>166,715<br>R 161,879<br>R 160,084<br>R 156,665<br>R 165,475<br>167,932   | 29,000<br>31,517<br>31,484<br>21,851<br>29,625<br>32,889<br>28,020<br>28,921<br>31,246 | 1,270                                      | 0,373<br>Q N1N  |
| 2009   | 39,870<br>37,425<br>37,775<br>35,134<br>32,050<br>34,315<br>31,944   | 735                                    | 25,622   | 4,270   | 11.829  | 109.703  | 1,471<br>615  | R 9 839   | R 161,879  | 21.851   | 1,364<br>1,372                             | 10.205  |
| 2010   | 37,775   | 747                                    | 26,443   | 3,663   | 10.956  | 108,436  | 593   | R 9,994   | R 160.084  | 29.625   | 1,251                                      | 9,745   |
| 2010<br>2011   | 35,134   | 776                                    | 26,691   | 3,213   | R 10,540  | 105,871  | 593<br>688  | R 9,176   | R 156,180  | 32,889   | 1,357                                      | 9,969   |
| 2012   | 32,050   | 791                                    | 25,676   | 3,628   | 11,629<br>10,956<br>R 10,540<br>9,373<br>12,390<br>12,116   | 105,052<br>R 109,078<br>109,448  | 511   | _R 9,424  | R 153,665  | 28,020   | 1,251<br>1,357<br>1,215<br>1,419           | _ 10,609  |
| 2013   | 34,315   | 815<br>861                             | 28,591   | 3,889   | 12,390  | R 109,078  | 406<br>274  | R 11,121  | R 165,475  | 28,921   | 1,419                                      | R 11,216  |
| 2014   | 31,944   | 861                                    | 29,042   | 3,981   | 12,116  | 109,448  | 274   | 13,071  | 167,932  | 31,246   | 1,600                                      | 11,108  |

a Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.
 b Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Petroleum."
 c Liquefied petroleum gases, includes ethane and olefins.
 d Motor gasoline as it is consumed; includes fuel ethanol blended into motor gasoline.

e Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, and the 16 other petroleum products as described in the Technical Notes, Section 4, "Other Petroleum Products."

<sup>&</sup>lt;sup>f</sup> Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be

separately identified.

g Includes denaturant. Pre-2005 estimates are not comparable to those for later years. See Section 5 of Technical Notes. NA = Not available.

Where shown, R = Revised data and (s) = Value less than 0.5.

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

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

M Table CT2. Primary Energy Consumption Estimates, Selected Years, 1960-2014, Michigan (Trillion Btu)

|      |       |  |                        |                          | Fossi            | Fuels   |                      |                    |                |                      | Fossil<br>(as comi   |   |
|------|-------|--|------------------------|--------------------------|------------------|---|----------------------|--------------------|----------------|----------------------|--|---|
|      |       |  |                        |                          |                  | Petroleum   |                      |                    |                |                      | (as com  |   |
| Year | Coal  | Natural Gas<br>excluding<br>Supplemental<br>Gaseous Fuels <sup>a</sup> | Distillate<br>Fuel Oil | Jet<br>Fuel <sup>b</sup> | LPG <sup>c</sup> | Motor<br>Gasoline<br>excluding<br>Fuel Ethanol <sup>a</sup> | Residual<br>Fuel Oil | Other <sup>d</sup> | Total          | Total                | Natural Gas<br>including<br>Supplemental<br>Gaseous Fuels <sup>a</sup> | Motor<br>Gasoline<br>including<br>Fuel Ethanol <sup>a</sup> |
| 1960 | 653.1 | 383.0  | 176.1                  | 18.2                     | 11.0             | 345.6   | 74.4                 | 88.2               | 713.5          | 1,749.7              | 383.0  | 345.6   |
| 1965 | 830.2 | 563.6  | 176.4                  | 24.0                     | 14.5             | 410.0   | 54.0                 | 113.1              | 792.0<br>955.9 | 2,185.7              | 563.6  | 410.0   |
| 1970 | 828.9 | 821.3  | 222.2                  | 41.0                     | 23.7             | 508.7   | 63.2                 | 97.2               | 955.9          | 2,606.1              | 821.3  | 508.7   |
| 1971 | 837.6 | 863.3  | 243.0                  | 40.0                     | 25.8             | 522.9   | 70.2                 | 90.1               | 992.0          | 2,693.0              | 863.3  | 522.9   |
| 1972 | 843.7 | 877.7  | 275.9                  | 38.4                     | 30.5             | 552.6   | 82.2                 | 95.3               | 1,074.9        | 2,796.3              | 877.7  | 552.6   |
| 1973 | 791.3 | 929.6  | 273.4                  | 38.8                     | 30.9             | 578.4   | 99.5                 | 102.0              | 1,122.8        | 2,843.7              | 929.6  | 578.4   |
| 1974 | 710.0 | 942.6  | 254.4<br>245.6         | 35.9                     | 29.9<br>28.4     | 562.4   | 104.9                | 94.6               | 1,082.1        | 2,734.7              | 942.6  | 562.4   |
| 1975 | 751.0 | 894.8  | 245.6                  | 32.1                     | 28.4             | 568.7   | 115.0                | 86.9               | 1,076.7        | 2,722.5              | 894.8  | 568.7   |
| 1976 | 717.7 | 895.1  | 257.1                  | 31.9                     | 33.2             | 596.2   | 132.7                | 92.6               | 1,143.7        | 2,756.5              | 895.1  | 596.2   |
| 1977 | 693.0 | 745.7  | 261.1                  | 35.0                     | 33.2             | 603.1   | 139.1                | 99.7               | 1,171.2        | 2,610.0              | 745.7  | 603.1   |
| 1978 | 671.3 | 793.9  | 263.0                  | 36.3                     | 34.0<br>28.2     | 617.4   | 160.0                | 104.7              | 1,215.5        | 2,680.6              | 793.9  | 617.4   |
| 1979 | 758.9 | 880.4  | 182.1                  | 37.1                     | 28.2             | 568.7   | 119.7                | 102.8              | 1,038.7        | 2,678.0              | 880.4  | 568.7   |
| 1980 | 759.0 | 874.7  | 161.0                  | 37.1                     | 25.3             | 509.7   | 83.6                 | 90.2               | 906.9          | 2,540.6              | 874.7  | 509.7   |
| 1981 | 757.5 | 811.4  | 155.1                  | 34.3                     | 20.9             | 487.4   | 49.2                 | 71.1               | 818.0          | 2,386.9              | 814.5  | 487.4   |
| 1982 | 711.4 | 762.1  | 133.6                  | 31.8                     | 26.4             | 463.2   | 30.7                 | 60.2               | 746.1          | 2,219.6              | 764.6  | 463.2   |
| 1983 | 706.6 | 710.1  | 129.2                  | 32.9                     | 26.8             | 465.7   | 28.1                 | 64.9               | 747.5          | 2,164.2              | 713.2  | 465.7   |
| 1984 | 747.6 | 727.5  | 145.1                  | 33.4                     | 28.3             | 488.3   | 19.6                 | 67.7               | 782.4          | 2,257.5              | 730.3  | 488.3   |
| 1985 | 781.9 | 717.0  | 151.6                  | 36.7                     | 52.0             | 490.9   | 19.5                 | 62.7               | 813.5          | 2,312.4              | 719.9  | 490.9   |
| 1986 | 811.9 | 686.6  | 157.2                  | 39.9                     | 57.9             | 504.4   | 23.6                 | 66.2               | 849.2          | 2.347.8              | 689.4  | 504.4   |
| 1987 | 840.2 | 668.7  | 155.0                  | 46.9                     | 65.5             | 520.9   | 20.8                 | 71.5               | 880.6          | 2,389.5              | 671.2  | 520.9   |
| 1988 | 830.9 | 763.3  | 165.4                  | 48.1                     | 64.2             | 537.7   | 30.1                 | 67.2               | 912.8          | 2 506 9              | 765.7  | 537.7   |
| 1989 | 790.2 | 797.3  | 152.6                  | 51.8                     | 71.1             | 531.3<br>524.8  | 28.3                 | 77.6               | 912.7          | 2,500.2<br>2,539.9   | 799.8  | 531.3   |
| 1990 | 788.0 | 879.3  | 141.9                  | 56.6                     | 55.3             | 524.8   | 17.2                 | 76.8               | 872.6          | 2,539.9              | 898.8  | 524.8   |
| 1991 | 764.1 | 890.0  | 144.6                  | 57.5                     | 59.4             | 532.5   | 11.0                 | 69.8               | 874.7          | 2,528.8              | 905.3  | 532.5   |
| 1992 | 707.5 | 964.2  | 144.6                  | 57.0                     | 61.9             | 532.5   | 10.7                 | 71.0               | 877.7          | 2,528.8<br>2,549.3   | 979.2  | 532.5   |
| 1993 | 715.5 | 924.9  | 163.8                  | 58.1<br>58.2             | 49.2             | 543.8   | 13.1                 | 77.7               | 905.7          | 2.546.1              | 938.0  | 549.4   |
| 1994 | 801.0 | 917.0  | 160.3                  | 58.2                     | 53.7             | 546.7   | 13.7                 | 74.1               | 906.5          | 2.624.5              | 931.0  | 553.1   |
| 1995 | 786.7 | 971.0  | 159.7                  | 50.0                     | 54.3             | 572.6   | 10.1                 | 82.7               | 929.5          | 2.687.1              | 992.7  | 576.8   |
| 1996 | 796.3 | 1,017.1  | 167.3                  | 51.3                     | 68.7             | 574.9   | 11.2                 | 77.3               | 950.7          | 2.764.1              | 1.039.2  | 576.7   |
| 1997 | 781.1 | 987.6  | 172.8                  | 53.8                     | 55.1             | 583.8   | 9.8                  | 104.6              | 979.9          | 2,748.6              | 1,010.2  | 586.1   |
| 1998 | 826.9 | 871.6  | 174.0                  | 51.2                     | 50.0             | 596.3   | 13.3                 | 99.0               | 983.8          | 2.682.2              | 894.0  | 599.3   |
| 1999 | 832.6 | 947.0  | 183.7                  | 51.7                     | 58.2             | 627.6   | 15.7                 | 99.5               | 1,036.4        | 2,816.0              | 968.3  | 630.9   |
| 2000 | 799.8 | 971.7  | 179.4                  | 40.9                     | 61.7             | 608.2   | 14.8                 | 88.7               | 993.7          | 2.765.1              | 984.3  | 616.1   |
| 2001 | 789.7 | 924.5  | 171.7                  | 35.3                     | 71.7             | 618.1   | 10.0                 | 75.7               | 982.5          | 2.696.7              | 928.7  | 622.9   |
| 2002 | 739.9 | 984.7  | 168.7                  | 34.1                     | 79.7             | 624.2   | 12.5                 | 74.5               | 993.8          | 2.718.4              | 984.7  | 634.4   |
| 2003 | 747.9 | 950.7  | 176.6                  | 15.3                     | 78.1             | 606.4   | 13.5                 | 79.5               | 969.4          | 2.668.0              | 950.7  | 619.3   |
| 2004 | 773.8 | 938.6  | 181.2                  | 21.2                     | 78.4             | 605.4   | 13.2                 | 81.4               | 980.8          | 2.693.3              | 938.6  | 618.7   |
| 2005 | 799.5 | 927.5  | 176.4                  | 19.5                     | 87.1             | 603.9   | 13.9                 | 79.6               | 980.3          | 2.707.3              | 927.5  | 621.6   |
| 2006 | 773.6 | 817.0  | 173.7                  | 23.4                     | 56.4             | 594.5   | 7.6                  | 72.3               | 927.8          | 2.518.4              | 817.0  | 613.1   |
| 2007 | 801.2 | 814.9  | 169.9                  | 29.9                     | 60.9             | 575.5   | 11.2                 | 74.4               | 921.8          | 2.537.9              | 814.9  | 598.3   |
| 2008 | 800.0 | 797.5  | 154.4                  | 26.3                     | 47.6             | 539.8   | 9.2                  | 61.2               | 838.7          | 2,436.2              | 797.5  | 571.1   |
| 2009 | 735.9 | 750.8  | 148.1                  | 24.2                     | 45.0             | 524.3   | 9.2<br>3.9           | R 60 9             | R 806.4        | 2,436.2<br>R 2,293.0 | 750.8  | 559.6   |
| 010  | 749.3 | 758.7  | 152.8                  | 20.8                     | 41.7             | 516.9   | 3.7                  | R 61 6             | R 797.5        | H 2.305.5            | 758.7  | 550.6   |
| 2011 | 691.1 | 787.3  | 154.2                  | 18.2                     | R 40.1           | 502.0   | 4.3                  | H 56.4             | R 775.2        | R 2.253.6            | 787.3  | 536.6   |
| 2012 | 621.6 | 804.1  | 148.3                  | 20.6                     | 35.6             | 495.1   | 3.2                  | H 58.0             | R 760.6        | R 2.186.4            | 804.1  | 531.9   |
| 2013 | 658.2 | R 828.5  | 165.1                  | 22.1                     | 47.1             | R 513.2   | 2.6                  | R 67.4             | R 817.5        | R 2,304.1            | R 828.5  | R 552.2   |
| 2014 | 618.5 | 878.7  | 165.1<br>167.7         | 22.6                     | 46.0             | 515.2   | 2.6<br>1.7           | 78.9               | 832.2          | 2,329.4              | 878.7  | 553.8   |

<sup>&</sup>lt;sup>a</sup> Supplemental gaseous fuels (SGF) and fuel ethanol are consumed with natural gas and motor gasoline, respectively. In this table, natural gas excluding SGF and motor gasoline excluding fuel ethanol are presented so that a fossil fuel total can be calculated. Natural gas including SGF and motor gasoline including fuel ethanol are presented separately for reference.

<sup>b</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Petroleum."

<sup>&</sup>lt;sup>c</sup> Liquefied petroleum gases, includes ethane and olefins.

d Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, and the 16 other petroleum products as described in the Technical Notes, Section 4, "Other Petroleum Products."

Where shown, R = Revised data and (s) = Value less than +0.05 and greater than -0.05 trillion Btu.

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

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm. Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT2. Primary Energy Consumption Estimates, Selected Years, 1960-2014, Michigan (Continued) (Trillion Btu)

|              |                              |  |                                |                              | R  | enewable Energ | y               |                       |            |                |                                      |  |                      |
|--------------|------------------------------|--|--------------------------------|------------------------------|--|----------------|-----------------|-----------------------|------------|----------------|--------------------------------------|--|----------------------|
|              |                              |  |                                | Bior                         | nass                                       |                |                 |                       |            |                | Net                                  |  |                      |
| Year         | Nuclear<br>Electric<br>Power | Hydro-<br>electric<br>Power <sup>e</sup> | Wood and<br>Waste <sup>f</sup> | Fuel<br>Ethanol <sup>9</sup> | Losses<br>and Co-<br>products <sup>h</sup> | Total          | Geo-<br>thermal | Solar/PV <sup>i</sup> | Wind       | Total          | Interstate<br>Flow of<br>Electricity | Net<br>Electricity<br>Imports <sup>K</sup> | Total                |
| 1960         | 0.0                          | 21.8                                     | 37.3                           | NA                           | NA   | 37.3           | 0.0             | NA                    | NA         | 59.1           | 38.8                                 | 4.3  | 1,851.8              |
| 1965         | 2.1                          | 19.0                                     | 36.9                           | NA                           | NA   | 36.9           | 0.0             | NA                    | NA         | 55.9           | 36.3                                 | -1.4                                       | 2,278.6              |
| 1970         | 4.1                          | 17.9                                     | 36.4                           | NA                           | NA   | 36.4           | 0.0             | NA                    | NA         | 54.3           | 39.4                                 | -1.4                                       | 2,702.6              |
| 1971         | 4.2                          | 18.6                                     | 35.3                           | NA                           | NA   | 35.3           | 0.0             | NA                    | NA         | 54.0           | 45.3                                 | 1.8  | 2,798.2              |
| 1972<br>1973 | 22.9<br>32.5                 | 18.6                                     | 37.6                           | NA<br>NA                     | NA   | 37.6<br>36.3   | 0.0<br>0.0      | NA<br>NA              | NA<br>NA   | 56.2<br>47.2   | 86.4                                 | 8.5  | 2,970.4              |
| 1973         | 32.5<br>4.6                  | 10.9<br>12.3                             | 36.3<br>38.2                   | NA<br>NA                     | NA<br>NA                                   | 36.3<br>38.2   | 0.0             | NA<br>NA              | NA<br>NA   | 47.2<br>50.6   | 124.9<br>114.1                       | 12.2<br>12.4                               | 3,060.5<br>2,916.4   |
| 1974         | 4.6<br>79.0                  | 12.3                                     | 35.2<br>35.9                   | NA<br>NA                     | NA<br>NA                                   | 35.9           | 0.0             | NA<br>NA              | NA<br>NA   | 47.5           | 15.8                                 | 12.4                                       | 2,916.4<br>2.865.8   |
| 1976         | 109.4                        | 10.9                                     | 41.6                           | NA<br>NA                     | NA<br>NA                                   | 41.6           | 0.0             | NA<br>NA              | NA<br>NA   | 52.5           | 56.3                                 | 9.5  | 2,984.2              |
| 1977         | 110.2                        | 9.7                                      | 45.0                           | NA                           | NA   | 45.0           | 0.0             | NA                    | NA         | 54.7           | 77.7                                 | 20.9                                       | 2,873.4              |
| 1978         | 143.4                        | 11.2                                     | 55.0                           | NA                           | NA   | 55.0           | 0.0             | NA                    | NA         | 66.3           | 29.4                                 | 23.0                                       | 2,942.7              |
| 1979         | 164.7                        | 13.5                                     | 60.4                           | NA                           | NA   | 60.4           | 0.0             | NA                    | NA         | 73.9           | 7.2                                  | (s)  | 2,923.8              |
| 1980         | 173.3                        | 12.5                                     | 90.6                           | NA                           | NA   | 90.6           | 0.0             | NA                    | NA         | 103.0          | -11.7                                | 19.4                                       | 2,824.7              |
| 1981         | 188.2                        | 13.0                                     | 95.3                           | 0.6                          | 0.0  | 95.9           | 0.0             | NA                    | NA         | 108.9          | -25.9                                | 15.2                                       | 2,673.2              |
| 1982         | 166.1                        | 12.7                                     | 94.8                           | 1.7                          | 0.0  | 96.5           | 0.0             | NA                    | NA         | 109.1          | 23.3                                 | 7.3  | 2,525.4              |
| 1983         | 178.7                        | 12.9                                     | 104.8                          | 4.6                          | 0.0  | 109.4          | 0.0             | NA                    | 0.0        | 122.3          | 52.1                                 | 4.3  | 2,521.7              |
| 1984         | 152.7                        | 11.2                                     | 99.1                           | 4.5                          | 0.0  | 103.6          | 0.0             | 0.0                   | 0.0        | 114.8          | 70.6                                 | 1.9  | 2,597.4              |
| 1985<br>1986 | 142.9<br>129.7               | 10.4                                     | 100.2<br>105.6                 | 3.6                          | 0.0<br>0.0                                 | 103.8<br>108.5 | 0.0             | 0.0<br>0.0            | 0.0<br>0.0 | 114.2<br>116.0 | 64.7<br>57.1                         | 1.3  | 2,635.5              |
| 1987         | 150.3                        | 7.5<br>5.0                               | 105.6                          | 2.9<br>4.1                   | 0.0  | 111.1          | 0.0<br>0.0      | 0.0                   | 0.0        | 116.0          | -18.1                                | 2.3<br>2.6                                 | 2,652.9<br>2.640.5   |
| 1988         | 188.8                        | 6.2                                      | 112.2                          | 4.1                          | 0.0  | 116.4          | 0.0             | 0.0                   | 0.0        | 122.6          | -10.1<br>-5.9                        | 0.6  | 2,812.9              |
| 1989         | 225.5                        | 7.8                                      | 103.3                          | 4.0                          | 0.0  | 107.3          | 0.5             | 0.2                   | 0.0        | 115.9          | 23.4                                 | -18.5                                      | 2,846.5              |
| 1990         | 228.7                        | 16.9                                     | 80.2                           | 4.2                          | 0.0  | 84.4           | 0.6             | 0.2                   | 0.0        | 102.2          | 40.6                                 | -37.3                                      | 2,874.1              |
| 1991         | 283.3                        | 18.3                                     | 86.2                           | 5.5                          | 0.0  | 91.7           | 0.6             | 0.2<br>0.2            | 0.0        | 110.9          | -114.0                               | -1.5                                       | 2,807.4              |
| 1992         | 197.4                        | 18.4                                     | 89.1                           | 4.7                          | 0.0  | 93.9           | 0.7             | 0.2                   | 0.0        | 113.2          | -3.4                                 | -0.8                                       | 2,855.8              |
| 1993         | 299.6                        | 18.2                                     | 81.4                           | 5.6                          | 0.0  | 86.9           | 0.7             | 0.2                   | 0.0        | 106.1          | -106.9                               | 8.2  | 2,853.0              |
| 1994         | 147.8                        | 17.1                                     | 84.3                           | 6.4                          | 0.0  | 90.8           | 0.8             | 0.3                   | 0.0        | 108.9          | -31.0                                | 23.6                                       | 2,873.8              |
| 1995         | 256.9                        | 16.5                                     | 88.2                           | 4.2                          | 0.0  | 92.4           | 0.8             | 0.3                   | 0.0        | 110.0          | -74.1                                | 19.7                                       | 2,999.5              |
| 1996<br>1997 | 281.8<br>230.0               | 18.4<br>17.5                             | 102.9<br>95.0                  | 1.8<br>2.3                   | 0.0<br>0.0                                 | 104.6<br>97.3  | 0.9<br>1.0      | 0.3<br>0.3            | 0.0        | 124.2<br>116.0 | -76.6<br>1.0                         | 6.5  | 3,100.0<br>3,100.3   |
| 1997         | 131.1                        | 17.5<br>14.2                             | 95.0<br>90.4                   | 2.3<br>2.9                   | 0.0  | 97.3           | 1.0             | 0.3                   | 0.0<br>0.0 | 108.9          | 1.0                                  | 4.7<br>-5.2                                | 3,100.3              |
| 1999         | 152.5                        | 14.2                                     | 91.6                           | 3.3                          | 0.0  | 94.9           | 1.0             | 0.3                   | 0.0        | 111.3          | 123.9                                | -0.7                                       | 3,203.0              |
| 2000         | 196.9                        | 14.6                                     | 94.6                           | 7.9                          | 0.0  | 102.4          | 1.2             | 0.2                   | 0.0        | 118.4          | 122.5                                | -1.1                                       | 3,201.9              |
| 2001         | 278.9                        | 16.1                                     | 76.6                           | 4.8                          | 0.0  | 81.4           | 1.2             | 0.2                   | (s)        | 99.0           | 17.0                                 | -7.2                                       | 3,084.5              |
| 2002         | 324.6                        | 17.0                                     | 70.7                           | 10.2                         | 0.0  | 80.9           | 1.4             | 0.2                   | (s)        | 99.5           | 5.6                                  | -7.6                                       | 3,140.4              |
| 2003         | 291.3                        | 14.0                                     | 81.1                           | 12.9                         | 2.6  | 96.6           | 1.8             | 0.2                   | (s)        | 112.6          | 119.8                                | -12.2                                      | 3,179.6              |
| 2004         | 318.7                        | 15.4                                     | 84.3                           | 13.3                         | 2.9  | 100.5          | 1.9             | 0.3                   | (s)        | 118.1          | 24.6                                 | -10.9                                      | 3,143.7              |
| 2005         | 343.0                        | 14.6                                     | 93.1                           | 17.7                         | 2.7  | 113.5          | 2.2             | 0.3                   | (s)        | 130.7          | 24.1                                 | -9.3                                       | 3,195.8              |
| 2006         | 303.3                        | 15.1                                     | 88.2                           | 18.6                         | 4.5  | 111.2          | 2.6             | 0.4                   | (s)        | 129.3          | 83.0                                 | -7.2                                       | 3,026.8              |
| 2007         | 330.6                        | 12.6                                     | 90.3                           | 22.8                         | 10.5                                       | 123.6          | 3.0             | 0.5                   | (s)        | 139.7          | 19.8                                 | -4.1                                       | 3,023.8              |
| 2008<br>2009 | 329.1<br>228.5               | 13.4<br>13.4                             | 94.8<br>80.5                   | 31.2<br>35.3                 | 12.6<br>11.8                               | 138.7<br>127.7 | 3.5<br>4.3      | 0.5<br>0.6            | 1.4<br>2.9 | 157.6<br>148.9 | -13.5<br>2.1                         | 7.9<br>19.2                                | 2,917.2<br>R 2,691.9 |
| 2009         | 228.5<br>309.6               | 13.4                                     | 80.5<br>80.9                   | 35.3<br>33.8                 | 11.8                                       | 127.7          | 4.3<br>4.9      | 0.6                   | 2.9<br>3.5 | R 150.8        | -24.5                                | 19.2                                       | R 2,753.5            |
| 2010         | 344.2                        | 13.2                                     | R 91.0                         | 34.6                         | 14.7                                       | R 140.5        | 5.1             | R 1.0                 | 3.5<br>4.4 | R 164.1        | -24.5<br>9.4                         | 13.9                                       | R 2,785.2            |
| 2012         | 293.6                        | 11.6                                     | Rann                           | 36.8                         | 14.0                                       | R 140 7        | 5.2             | 1.2                   | 10.8       | R 169.4        | 23.9                                 | 1/16                                       | R 2 687 9            |
| 2013         | 302.2                        | 13.5                                     | R 94.6                         | R 38.9                       | 14.6                                       | R 148.1        | 5.2             | R 1.3                 | 26.7       | R 194.8        | 11.5                                 | R 19.9                                     | R 2,832.4            |
| 2014         | 326.8                        | 15.2                                     | 96.7                           | 38.6                         | 14.9                                       | 150.1          | 5.2             | 1.3                   | 36.8       | 208.6          | -3.2                                 | 19.9                                       | 2,881.5              |

e Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.

during the year. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

f Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

<sup>&</sup>lt;sup>9</sup> Excludes denaturant. Pre-2005 estimates are not comparable to those for later years. See Section 5 of Technical Notes.

h Losses and co-products from the production of fuel ethanol.

Solar thermal and photovoltaic energy.

I Solar thermal and photovoltaic energy.

I Includes the energy losses associated with the generation, transmission, and distribution of the electricity flowing across state lines. A positive number indicates that more electricity came into the state than went out of the state

k Electricity traded with Canada and Mexico. Calculated by converting net imports in kilowatthours by 3,412 Btu per kilowatthour.

NA = Not available.

Where shown, R = Revised data and (s) = Value less than +0.05 and greater than -0.05 trillion Btu.

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

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.
Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT3. Total End-Use Energy Consumption Estimates, Selected Years, 1960-2014, Michigan

|              |                        |                             |                        |                          |                  | Petroleum                      |                      |                    |                    | Hydro-<br>electric            | Bion                                | nass                            |                              |  | Retail                        |                              |   |                      |
|--------------|------------------------|-----------------------------|------------------------|--------------------------|------------------|--------------------------------|----------------------|--------------------|--------------------|-------------------------------|-------------------------------------|---------------------------------|------------------------------|--|-------------------------------|------------------------------|---|----------------------|
|              | Coal                   | Natural<br>Gas <sup>a</sup> | Distillate<br>Fuel Oil | Jet<br>Fuel <sup>b</sup> | LPG <sup>c</sup> | Motor<br>Gasoline <sup>d</sup> | Residual<br>Fuel Oil | Other <sup>e</sup> | Total              | Power f,g                     |                                     |                                 |                              | Solar                                      | Electricity<br>Sales          |                              | Electrical                              |                      |
| Year         | Thousand<br>Short Tons | Billion<br>Cubic Feet       | ,                      | ,                        | т                | housand Barrels                | ,                    | ,                  |                    | Million<br>Kilowatt-<br>hours | Wood<br>and<br>Waste <sup>g,h</sup> | Losses<br>and Co-<br>products i | Geo-<br>thermal <sup>9</sup> | Thermal/<br>Photo-<br>voltaic <sup>9</sup> | Million<br>Kilowatt-<br>hours | Net<br>Energy <sup>g,j</sup> | System<br>Energy<br>Losses <sup>k</sup> | Total <sup>g,j</sup> |
| 1960         | 15,631                 | 365                         | 30,158                 | 3,369                    | 2,827            | 65,782                         | 11,477               | 14,867             | 128,481            | 212                           |                                     |                                 |                              |  | 27,599                        |                              |   |                      |
| 1965         | 17,009                 | 553                         | 30,219                 | 4,377                    | 3,716            | 78,044                         | 8,278                | 19,635             | 144,269            | 146                           |                                     |                                 |                              |  | 39,784                        |                              |   |                      |
| 1970         | 13,942                 | 745                         | 37,176                 | 7,365                    | 6,202            | 96,831                         | 5,543                | 16,357             | 169,473            | 123                           |                                     |                                 |                              |  | 55,292                        |                              |   |                      |
| 1975         | 10,284                 | 827                         | 40,708                 | 5,700                    | 7,475            | 108,255                        | 4,156                | 14,433             | 180,727            | 121                           |                                     |                                 |                              |  | 64,348                        |                              |   |                      |
| 1980         | 8,960                  | 839<br>699                  | 26,864                 | 6,646                    | 6,736<br>14,225  | 97,025                         | 3,669<br>2,587       | 15,192<br>10,387   | 156,130            | 117<br>117                    |                                     |                                 |                              |  | 69,681                        |                              |   |                      |
| 1985<br>1990 | 6,898<br>4,987         | 794                         | 25,378<br>24,016       | 6,570<br>10,057          | 14,225           | 93,447<br>99,913               | 1,579                | 12,598             | 152,593<br>163,063 | 23                            |                                     |                                 |                              |  | 74,427<br>82,367              |                              |   |                      |
| 1995         | 4,637                  | 853                         | 27,034                 | 8,818                    | 14,497           | 110,546                        | 500                  | 13,400             | 174,796            | 27                            |                                     |                                 |                              |  | 94,701                        |                              |   |                      |
| 2000         | 4,018                  | 828                         | 30,450                 | 7,214                    | 16,308           | 118,160                        | 675                  | 14,343             | 187,148            | 27                            |                                     |                                 |                              |  | 104,772                       |                              |   |                      |
| 2001         | 3,802                  | 773                         | 29,145                 | 6,219                    | 18,876           | 119,472                        | 440                  | 12,137             | 186,290            | 26                            |                                     |                                 |                              |  | 102,409                       |                              |   |                      |
| 2002         | 3,047                  | 820                         | 28,460                 | 6,016                    | 21,039           | 121,745                        | 455                  | 11,946             | 189,661            | 29                            |                                     |                                 |                              |  | 104,714                       |                              |   |                      |
| 2003         | 2,872                  | 822                         | 29,859                 | 2,695                    | 20,578           | 119,019                        | 1,001                | 12,740             | 185,892            | 75                            |                                     |                                 |                              |  | 108,877                       |                              |   |                      |
| 2004         | 3,191                  | 783                         | 30,746                 | 3,733                    | 20,826           | 118,967                        | 987                  | 13,034             | 188,293            | 30                            |                                     |                                 |                              |  | 106,606                       |                              |   |                      |
| 2005         | 3,170                  | 783<br>694                  | 29,943                 | 3,431                    | 23,157           | 119,584                        | 1,110<br>970         | 12,545             | 189,770            | 29<br>32                      |                                     |                                 |                              |  | 110,445                       |                              |   |                      |
| 2006<br>2007 | 3,141<br>3,095         | 674                         | 29,627<br>29,076       | 4,124<br>5,270           | 15,036<br>16,217 | 118,106<br>116,059             | 1,255                | 11,377<br>11,804   | 179,240<br>179,681 | 26                            |                                     |                                 |                              |  | 108,018<br>109,297            |                              |   |                      |
| 2008         | 3,394                  | 686                         | 26,426                 | 4,641                    | 12,506           | 111,410                        | 1,256                | 9,739              | 165,978            | 26                            |                                     |                                 |                              |  | 105,781                       |                              |   |                      |
| 2009         | 2,095                  | 652                         | 25,366                 | 4,270                    | 11,829           | 109,703                        | 488                  | R 9,605            | R 161,260          | 25                            |                                     |                                 |                              |  | 98,121                        |                              |   |                      |
| 2010         | 2,799                  | 634                         | 26,187                 | 3,663                    | 10,956           | 108,436                        | 476                  | R 9,774            | R 159,491          | 28                            |                                     |                                 |                              |  | 103,649                       |                              |   |                      |
| 2011         | 2,799                  | 664                         | 26,371                 | 3,213                    | R 10,540         | 105,871                        | 644                  | R 9,011            | R 155,650          | 29                            |                                     |                                 |                              |  | 105,054                       |                              |   |                      |
| 2012         | 2,381                  | 609                         | 25,453                 | 3,628                    | 9,373            | 105,052                        | 461                  | R 9,247            | R 153,214          | 26                            |                                     |                                 |                              |  | 104,818                       |                              |   |                      |
| 2013         | 2,662                  | 704                         | 28,368                 | 3,889                    | 12,390           | R 109,078                      | 378                  | R 10,496           | R 164,600          | 29                            |                                     |                                 |                              |  | 103,038                       |                              |   |                      |
| 2014         | 2,543                  | 749                         | 28,781                 | 3,981                    | 12,116           | 109,448                        | 258                  | 11,209             | 165,792            | 29                            |                                     |                                 |                              |  | 103,314                       |                              |   |                      |
|              |                        |                             |                        |                          |                  |                                |                      |                    | Trillion Btu       | l                             |                                     |                                 |                              |  |                               |                              |   |                      |
| 1960         | 396.8                  | 377.6                       | 175.7                  | 18.2                     | 11.0             | 345.6                          | 72.2                 | 88.2               | 710.8              | 2.3                           | 37.3                                | NA                              | NA                           | NA   | 94.2                          | 1,619.0                      | 232.9                                   | 1,851.8              |
| 1965         | 430.3                  | 560.5                       | 176.0                  | 24.0                     | 14.5             | 410.0                          | 52.0                 | 113.1              | 789.6              | 1.5                           | 36.9                                | NA                              | NA                           | NA   | 135.7                         | 1,954.6                      | 324.0                                   | 2,278.6              |
| 1970         | 341.8                  | 756.0                       | 216.6                  | 41.0                     | 23.7             | 508.7                          | 34.8                 | 97.2               | 921.9              | 1.3                           | 36.4                                | NA                              | NA                           | NA   | 188.7                         | 2,246.2                      | 456.4                                   | 2,702.6              |
| 1975         | 256.1                  | 847.5                       | 237.1                  | 31.6                     | 28.4             | 568.7                          | 26.1                 | 86.9               | 978.9              | 1.3                           | 35.9                                | NA                              | NA                           | NA   | 219.6                         | 2,339.2                      | 526.6                                   | 2,865.8              |
| 1980         | 226.9                  | 855.2                       | 156.5                  | 37.1                     | 25.3             | 509.7                          | 23.1                 | 90.2               | 841.9              | 1.2                           | 90.6                                |                                 | NA                           | NA   | 237.8                         | 2,253.5                      | 571.2                                   | 2,824.7              |
| 1985<br>1990 | 176.1<br>124.5         | 715.2<br>829.7              | 147.8<br>139.9         | 36.7<br>56.6             | 52.0<br>55.3     | 490.9<br>524.8                 | 16.3<br>9.9          | 62.7<br>76.8       | 806.4<br>863.3     | 1.2<br>0.2                    | 100.2<br>71.2                       |                                 | NA<br>0.6                    | NA<br>0.2                                  | 253.9<br>281.0                | 2,053.9<br>2,157.1           | 581.6<br>717.0                          | 2,635.5<br>2,874.1   |
| 1995         | 115.5                  | 887.6                       | 157.3                  | 50.0                     | 54.3             | 576.8                          | 3.1                  | 82.7               | 924.4              | 0.2                           | 68.5                                |                                 | 0.8                          | 0.2  | 323.1                         | 2,301.1                      | 698.4                                   | 2,974.1              |
| 2000         | 105.1                  | 858.4                       | 177.2                  | 40.9                     | 61.7             | 616.1                          | 4.2                  | 88.7               | 988.7              | 0.3                           | 68.9                                | 0.0                             | 1.2                          |  | 357.5                         | 2,369.3                      | 832.6                                   | 3,201.9              |
| 2001         | 99.2                   | 796.9                       | 169.6                  | 35.3                     | 71.7             | 622.9                          | 2.8                  | 75.7               | 977.9              | 0.3                           | 51.5                                | 0.0                             | 1.2                          | 0.2  | 349.4                         | 2,273.2                      | 811.3                                   | 3,084.4              |
| 2002         | 79.1                   | 837.4                       | 165.6                  | 34.1                     | 79.7             | 634.4                          | 2.9                  | 74.1               | 990.8              | 0.3                           | 45.8                                | 0.0                             | 1.4                          | 0.2  | 357.3                         | 2,312.3                      | 828.1                                   | 3,140.4              |
| 2003         | 75.4                   | 846.1                       | 173.8                  | 15.3                     | 78.1             | 619.3                          | 6.3                  | 79.1               | 971.8              | 0.8                           | 56.3                                |                                 | 1.8                          | 0.2  | 371.5                         | 2,326.4                      | 853.2                                   | 3,179.6              |
| 2004         | 82.6                   | 803.2                       | 178.9                  | 21.2                     | 78.4             | 618.7                          | 6.2                  | 81.3               | 984.8              | 0.3                           | 59.0                                | 2.9                             | 1.9                          | 0.3  | 363.7                         | 2,298.7                      | 845.0                                   | 3,143.7              |
| 2005         | 81.2                   | 794.9                       | 174.2                  | 19.5                     | 87.1             | 621.6                          | 7.0                  | 78.6               | 987.9              | 0.3                           | 69.9                                |                                 | 2.2                          | 0.3  | 376.8                         | 2,316.3                      | 879.5                                   | 3,195.8              |
| 2006         | 80.2                   | 706.6                       | 171.9                  | 23.4                     | 56.4             | 613.1                          | 6.1                  | 71.1               | 942.0              | 0.3                           | 64.9                                | 4.5                             | 2.6                          | 0.4  | 368.6                         | 2,170.0                      | 856.8                                   | 3,026.8              |
| 2007<br>2008 | 79.8<br>87.6           | 689.4                       | 168.2<br>152.7         | 29.9<br>26.3             | 60.9<br>47.6     | 598.3<br>571.1                 | 7.9<br>7.9           | 72.9<br>59.9       | 938.1<br>865.6     | 0.3                           | 68.2<br>72.1                        |                                 | 3.0<br>3.5                   | 0.5<br>0.5                                 | 372.9<br>360.9                | 2,162.8<br>2,105.8           | 861.0<br>811.4                          | 3,023.8<br>2,917.2   |
| 2008         | 87.6<br>53.4           | 702.7<br>665.7              | 152.7<br>146.6         | 26.3                     | 47.6<br>45.0     | 5/1.1<br>559.6                 | 7.9                  | R 59 5             | R 838.1            | 0.3<br>0.2                    | 72.1<br>58.5                        | 12.6<br>11.8                    | 4.3                          | 0.5  | 360.9                         | 2,105.8<br>R 1,967.4         | 811.4<br>724.4                          | R 2,691.9            |
| 2010         | 71.7                   | 643.9                       | 151.3                  | 24.2                     | 45.0             | 550.6                          | 3.0                  | R 60.4             | R 827.8            | 0.2                           | 59.0                                | 14.7                            | 4.9                          | 0.7  | 353.7                         | R 1,976.6                    | 776.9                                   | R 2,753.5            |
| 2011         | 70.8                   | 672.8                       | 152.3                  | 18.2                     | R 40.1           | 536.6                          | 4.1                  | R 55.5             | R 806.7            | 0.3                           | R 68.1                              | 14.9                            | 5.1                          | R 1.0                                      | 358.4                         | R 1,998.0                    | 787.2                                   | R 2,785.2            |
| 2012         | 61.9                   | 619.7                       | 147.0                  | 20.6                     | 35.6             | 531.9                          | 2.9                  | R 57.0             | R 794.8            | 0.2                           | R 67.6                              |                                 | 5.2                          | 1.2  | 357.6                         | R 1,922.3                    | 765.7                                   | R 2,687.9            |
| 2013         | 69.3                   | R 715.4                     | 163.8                  | 22.1                     | 47.1             | R 552.2                        | 2.4                  | R 63.8             | R 851.3            | 0.3                           | R 71.4                              | 14.6                            | 5.2                          | R 1.3                                      | 351.6                         | R 2,080.3                    | R 752.1                                 | R 2,832.4            |
| 2014         | 64.3                   | 764.4                       | 166.2                  | 22.6                     | 46.0             | 553.8                          | 1.6                  | 68.3               | 858.5              | 0.3                           | 71.9                                | 14.9                            | 5.2                          | 1.3  | 352.5                         | 2,133.3                      | 748.2                                   | 2,881.5              |

<sup>&</sup>lt;sup>a</sup> Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.

blended into motor gasoline that is not included in the motor gasoline column. Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.

b Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Petroleum."

<sup>&</sup>lt;sup>C</sup> Liquefied petroleum gases, includes ethane and olefins.

d Beginning in 1993, includes fuel ethanol blended into motor gasoline.

e Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, and the 16 other petroleum products as described in the Technical Notes, Section 4, "Other Petroleum Products."

f Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.

<sup>&</sup>lt;sup>9</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in

h Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

i Losses and co-products from the production of fuel ethanol.

j Beginning in 2009, includes wind energy consumed by the commercial and industrial sectors. For 1981 through 1992, includes fuel ethanol

k Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

<sup>-- =</sup> Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Total end-use consumption estimates are the sum of the consumption estimates for the residential, commercial, industrial, and transportation sectors. • Totals may not equal sum of components due to independent rounding. • The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. • See the Technical Notes for each type of energy.

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT4. Residential Sector Energy Consumption Estimates, Selected Years, 1960-2014, Michigan

|                      |                        |  |                         | Petro             | oleum  |   | Biomass                      |                         |                         |  |                                    |   |   |
|----------------------|------------------------|--|-------------------------|-------------------|--|---|------------------------------|-------------------------|-------------------------|--|------------------------------------|---|---|
|                      | Coal <sup>a</sup>      | Natural<br>Gas <sup>b</sup>                        | Distillate<br>Fuel Oil  | Kerosene          | LPG °  | Total   | Wood d                       |                         |                         | Retail<br>Electricity<br>Sales   |                                    | Electrical<br>System                      |   |
| Year                 | Thousand<br>Short Tons | Billion<br>Cubic Feet                              |                         | Thousan           | d Barrels  |   | Thousand<br>Cords            | Geothermal <sup>e</sup> | Solar/PV <sup>e,f</sup> | Million<br>Kilowatthours   | Net<br>Energy <sup>e,g</sup>       | Energy<br>Losses h                        | Total <sup>e,g</sup>  |
| 1960                 | 1,414                  | 202  | 17,380                  | 765               | 2,090  | 20 234  | 1,103                        |                         |                         | 8,728  |                                    |   |   |
| 1965                 | 1,007                  | 271<br>340   | 16,334<br>18,839        | 1,279             | 2,528<br>4,842<br>5,625<br>3,637<br>4,771  | 20,234<br>20,141<br>24,226<br>25,347<br>12,915<br>11,389<br>12,104<br>12,685<br>15,682<br>14,871<br>13,163<br>15,200<br>15,199<br>17,799<br>18,310<br>18,348<br>16,033<br>17,601<br>11,140<br>12,383<br>11,472<br>10,904<br>9,892<br>8,9275 | 890<br>829                   |                         |                         | 11,309<br>17,103   |                                    |   |   |
| 1965<br>1970         | 481                    | 340  | 18,839                  | 1,279<br>545      | 4,842  | 24,226  | 829                          |                         |                         | 17,103   |                                    |   |   |
| 1975<br>1980<br>1985 | 119<br>65<br>56        | 335  | 19,420                  | 302               | 5,625  | 25,347  | 796                          |                         |                         | 20,886<br>22,260<br>22,302   |                                    |   |   |
| 1980                 | 65                     | 387<br>341   | 9,195<br>6,192          | 83<br>425         | 3,637  | 12,915  | 2,115<br>2,193               |                         |                         | 22,260   |                                    |   |   |
| 1985                 | 54                     | 327  | 0,192                   | 217               | 7.045  | 11,309  | 2,193                        |                         |                         | 22,302   |                                    |   | ==  |
| 1995                 | 33                     | 380  | 4,842<br>3,815<br>3,859 | 233               | 7,045<br>8,637<br>11,594<br>10,955<br>10,238<br>11,599<br>11,940<br>14,923<br>15,937<br>15,801<br>13,772<br>15,437<br>9,483<br>10,916<br>10,215<br>9,925 | 12,104  | 1,373<br>739                 |                         |                         | 25,319<br>28,623   |                                    |   |   |
| 1996                 | 33<br>32               | 400  | 3.859                   | 230               | 11.594   | 15.682  | 768                          |                         |                         | 28 901   |                                    |   |   |
| 1997<br>1998         | 21<br>16<br>2<br>2     | 380<br>320   | 3,662<br>2,653<br>2,994 | 254<br>272        | 10,955   | 14,871  | 503<br>447                   |                         |                         | 28,726<br>29,808   |                                    |   |   |
| 1998                 | 16                     | 320  | 2,653                   | 272               | 10,238   | 13,163  | 447                          |                         |                         | 29,808   |                                    |   |   |
| 1999                 | 2                      | 351  | 2,994                   | 606               | 11,599   | 15,200  | 459                          |                         |                         | 30,661   |                                    |   |   |
| 2000<br>2001         | 2                      | 368<br>344<br>368                                  | 2,902<br>2,654<br>2,212 | 356<br>222<br>160 | 11,940   | 15,199  | 494<br>673                   |                         |                         | 30,707<br>32,305<br>34,336   | ==                                 |   |   |
| 2001                 | 32                     | 344  | 2,054                   | 160               | 14,923   | 17,799  | 683                          |                         |                         | 32,305<br>34,336   |                                    |   |   |
| 2002                 | 4                      | 386  | 2 283                   | 264               | 15,801   | 18 348  | 719                          |                         |                         | 33,669   |                                    |   |   |
| 2003<br>2004         | 18                     | 386<br>362   | 2,283<br>2,040          | 264<br>221        | 13,772   | 16.033  | 737                          |                         |                         | 33.104   |                                    |   |   |
| 2005<br>2006<br>2007 | 12                     | 359<br>316<br>328                                  | 1,945<br>1,504<br>1,371 | 219<br>153<br>95  | 15,437   | 17,601  | 1,270<br>1,126<br>1,245      |                         |                         | 36,095   |                                    |   |   |
| 2006                 | . <u>1</u>             | 316  | 1,504                   | 153               | 9,483  | 11,140  | 1,126                        |                         |                         | 34,622   |                                    |   |   |
| 2007                 | 17                     | 328  | 1,371                   | 95                | 10,916   | 12,383  | 1,245                        |                         |                         | 35,366   |                                    |   |   |
| 2008<br>2009         | 0                      | 342<br>327   | 1,208<br>909            | 49<br>71          | 10,215   | 11,4/2  | 1,393<br>933                 |                         |                         | 34,297   |                                    |   |   |
| 2009                 | 0                      | 304  | 909<br>673              | 64                | 9,925  | 0.802   | 933<br>814                   |                         |                         | 3∠,034<br>34 691   | ==                                 |   |   |
| 2011                 | 0                      | 304<br>318   | 673<br>670              | 46                | 9,155<br>R 8,559   | R 9.275   | 833                          |                         |                         | 34.811   |                                    |   |   |
| 2012                 | ő                      | 277  | 459                     | 46<br>15          | 7.174  | 7,649   | 777                          |                         |                         | 34,461   |                                    |   |   |
| 2013                 | 0                      | 334  | 561                     | 23                | 9.761  | 7,649<br>10,344   | 1,074                        |                         |                         | 34,336<br>33,669<br>33,104<br>36,095<br>34,622<br>35,366<br>34,297<br>32,854<br>34,811<br>34,461<br>34,013 |                                    |   |   |
| 2014                 | 0                      | 355  | 701                     | 35                | 9,722  | 10,458  | 1,074                        |                         |                         | 33,515   |                                    |   |   |
|                      |                        |  |                         |                   |  |   | Trillion Btu                 |                         |                         |  |                                    |   |   |
| 1960                 | 35.0                   | 209.0<br>274.8                                     | 101.2                   | 4.3<br>7.3        | 8.0  | 113.6   | 22.1                         | NA<br>NA                | NA                      | 29.8   | 409.5                              | 73.6                                      | 483.1<br>560.2<br>704.1<br>740.3  |
| 1965                 | 24.8                   | 274.8  | 95.1                    | 7.3               | 9.7  | 1101  | 17.8                         | NA                      | NA                      | 38.6   | 468 1                              | 92.1                                      | 560.2   |
| 1970<br>1975         | 11.4                   | 345.1<br>343.0<br>394.9<br>348.9<br>341.9<br>395.4 | 95.1<br>109.7<br>113.1  | 3.1               | 18.6   | 131.4<br>136.4<br>68.0<br>56.8<br>56.5<br>56.7  | 16.6<br>15.9                 | NA                      | NA<br>NA                | 58.4<br>71.3   | 562.9<br>569.4                     | 141.2                                     | 704.1   |
| 19/5                 | 2.8                    | 343.0  | 113.1                   | 1.7               | 21.6   | 136.4   | 15.9                         | NA                      | NA                      | 71.3   | 569.4                              | 170.9                                     | 740.3   |
| 1980                 | 1.6<br>1.4             | 394.9  | 53.6<br>36.1<br>28.2    | 0.5<br>2.4<br>1.2 | 14.0   | 68.U<br>56.8  | 42.3<br>43.9<br>27.5         | NA<br>NA                | NA<br>NA                | 76.0<br>76.1   | 582.7<br>525.6                     | 182.5<br>174.3<br>220.4                   | 765.1<br>699.8<br>727.1<br>768.4<br>808.9<br>783.0<br>733.9<br>778.3<br>800.6<br>807.5<br>854.8 |
| 1985<br>1990         | 1.3                    | 341.9  | 28.2                    | 1.4               | 18.3<br>27.0   | 56.5  | 27.5                         | 0.6                     | 0.2                     | 86.4   | 525.6<br>506.7<br>557.3            | 220.4                                     | 727 1   |
| 1995                 | 0.8                    | 395.4  | 22.2                    | 1.3               | 33 1   | 56.7  | 14 8                         | 0.6<br>0.7              | 0.3                     | 86.4<br>97.7   | 557.3                              | 2111                                      | 768.4   |
| 1996                 | 0.8                    | 413.2  | 22.5                    | 1.3               | 44.5   | 68.2  | 15.4                         | 0.8                     | 0.3                     | 98.6   | 588.1<br>560.4                     | 220.8<br>222.5<br>239.4<br>240.9<br>244.0 | 808.9   |
| 1997                 | 0.5                    | 395 1  | 21.3                    | 1.4               | 42.0   | 64.8  | 10.1                         | 0.8                     | 0.3                     | 00 0   | 560.4                              | 222.5                                     | 783.0   |
| 1998<br>1999<br>2000 | 0.4                    | 334.7<br>365.3<br>381.1                            | 15.4<br>17.4<br>16.9    | 1.5<br>3.4        | 39.3<br>44.5   | 56.3<br>65.4<br>64.7  | 8.9<br>9.2                   | 0.8<br>0.9              | 0.3<br>0.3              | 101.7  | 494.5<br>537.4<br>556.6            | 239.4                                     | 733.9   |
| 1999                 | 0.1                    | 365.3  | 17.4                    | 3.4<br>2.0        | 44.5<br>45.8   | 65.4  | 9.2<br>9.9                   | 0.9                     | 0.3                     | 104.6  | 537.4                              | 240.9                                     | 778.3   |
| 2000                 | (s)                    | 381.1  | 15.4                    | 2.0               | 45.8<br>57.2   | 04.7<br>73.0  | 9.9                          | 1.0                     | 0.2                     | 104.8  | 551.6                              | 244.0                                     | 800.6<br>807.5  |
| 2001<br>2002         | (s)<br>0.8             | 354.4<br>375.5                                     | 12.9                    | 1.3<br>0.9        | 57.2<br>61.1   | 73.9<br>74.9  | 13.5<br>13.7                 | 1.1                     | 0.2<br>0.2              | 117.2  | 583.3                              | 255.9<br>271.5                            | 854.8   |
| 2003                 | 0.1                    | 397.1  | 13.3                    | 1.5               | 60.6   | 75.4  | 14.4                         | 1.4                     | 0.2                     | 114.9  | 603.5                              | 263.8                                     | 867.3   |
| 2003<br>2004         | 0.4                    | 371.1  | 13.3<br>11.9<br>11.3    | 1.5<br>1.3<br>1.2 | 52.8   | 75.4<br>66.0<br>71.8  | 14.7                         | 1.4<br>1.5              | 0.2<br>0.3              | 112.9  | 567.0                              | 263.8<br>262.4                            | 829.4   |
| 2005                 | 0.3                    | 364.0  | 11.3                    | 1.2               | 59.2   | 71.8  | 14.4<br>14.7<br>25.4<br>22.5 | 1.8                     | 0.3                     | 101.7<br>104.6<br>104.8<br>110.2<br>117.2<br>114.9<br>112.9  | 586.7                              | 287.4                                     | 829.4<br>874.1<br><sup>R</sup> 785.2  |
| 2006                 | (s)<br>0.4             | 321.5  | 8.7                     | 0.9               | 36.4   | 46.0  | 22.5                         | 2.1                     | 0.4                     | 118.1  | 510.5                              | 274 6                                     | H 785.2   |
| 2007                 | 0.4                    | 335.7  | 7.9<br>7.0              | 0.5               | 41.9   | 50.3  | 24.9                         | 2.5                     | 0.5                     | 120.7  | 535.0                              | 278.6                                     | 813.6<br>807.9  |
| 2008<br>2009         | 0.0<br>0.0             | 321.5<br>335.7<br>350.0<br>334.2                   | 7.0                     | 0.3<br>0.4        | 39.2<br>38.1   | 46.4<br>43.7  | 24.9<br>27.9<br>18.7         | 3.0<br>3.7              | 0.5<br>0.6              | 118.1<br>120.7<br>117.0<br>112.1<br>118.3<br>118.8   | 510.5<br>535.0<br>544.8<br>R 513.0 | 278.6<br>263.1<br>242.6                   | 807.9<br>755.5  |
| 2010                 | 0.0                    | 304.2<br>309.3                                     | 3.3<br>3.0              | 0.4               | 36.1<br>35.1   | 43.7<br>39.4  | 16.7                         | 3.1<br>4.2              | 0.0                     | 112.1  | R 488 2                            | 2 <del>4</del> 2.0                        | 733.5<br>748 1  |
| 2010<br>2011         | 0.0<br>0.0             | 309.3<br>322.4                                     | 5.3<br>3.9<br>3.9       | 0.3               | 35.1<br>R 32.8   | 39.4<br>R 37.0  | 16.3<br>16.7                 | 4.2<br>4.0              | 0.7<br>R 1.0            | 118.8  | R 488.2<br>R 499.8                 | 260.0<br>260.9                            | 748.1<br>R 760.7  |
| 2012                 | 0.0                    | _ 281.5  | 2.7                     | 0.1               | 27.5   | 30.3  | 15.5<br>21.5                 | 4.3                     | _ 1.2                   | 117.6  | _ 450.3                            | _ 251.7                                   | _ 702.1   |
| 2013                 | 0.0                    | 281.5<br>R 339.7                                   | 2.7<br>3.2<br>4.0       | 0.1<br>0.1<br>0.2 | 27.5<br>37.4   | 30.3<br>40.8  | 21.5                         | 4.3<br>4.3              | 1.2<br>R 1.3            | 117.6<br>116.1   | 450.3<br>R 523.6                   | 251.7<br>R 248.3<br>242.7                 | 702.1<br>R 771.9<br>787.8   |
| 2014                 | 0.0                    | 362.1  | 4.0                     | 0.2               | 37.3   | 41.5  | 21.5                         | 4.3                     | 1.3                     | 114.4  | 545.1                              | 242 7                                     | 787 8   |

a Beginning in 2008, data are no longer collected and are assumed to be zero.
 b Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.

Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.
 Liquefied petroleum gases, includes ethane and olefins.
 Wood and wood-derived fuels.
 There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
 Solar thermal and photovoltaic energy. Includes distributed solar thermal and photovoltaic energy used in the commercial and industrial sectors.

commercial and industrial sectors.

<sup>&</sup>lt;sup>9</sup> Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.

h Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.
 - - = Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Totals may not equal sum of components due to independent rounding. • The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT5. Commercial Sector Energy Consumption Estimates, Selected Years, 1960-2014, Michigan

|              |                        |                             |                        |            | Pe                | troleum                        |                      |                    | Ukadaa                                     | Biomass                             |                         | D-4-ii                         |                              |   |                      |
|--------------|------------------------|-----------------------------|------------------------|------------|-------------------|--------------------------------|----------------------|--------------------|--|-------------------------------------|-------------------------|--------------------------------|------------------------------|---|----------------------|
|              | Coal                   | Natural<br>Gas <sup>a</sup> | Distillate<br>Fuel Oil | Kerosene   | LPG b             | Motor<br>Gasoline <sup>c</sup> | Residual<br>Fuel Oil | Total <sup>d</sup> | Hydro-<br>electric<br>Power <sup>e,f</sup> |                                     |                         | Retail<br>Electricity<br>Sales |                              | Electrical                              |                      |
| Year         | Thousand<br>Short Tons | Billion<br>Cubic Feet       |                        |            | Thous             | and Barrels                    |                      |                    | Million<br>Kilowatthours                   | Wood<br>and<br>Waste <sup>f,g</sup> | Geothermal <sup>f</sup> | Million<br>Kilowatthours       | Net<br>Energy <sup>f,h</sup> | System<br>Energy<br>Losses <sup>i</sup> | Total <sup>f,h</sup> |
| 1960         | 982<br>760             | 43<br>85                    | 3,212<br>3,019         | 566<br>946 | 192<br>232<br>444 | 324<br>536                     | 1,175<br>839         | 5,468<br>5,572     | NA<br>NA                                   |                                     |                         | 6,381                          |                              |   |                      |
| 1965<br>1970 | 760<br>378             | 133                         | 3,482                  | 403        | 232<br>444        | 804                            | 558                  | 5,572<br>5,691     | NA<br>NA                                   |                                     |                         | 9,124<br>13,021                |                              |   |                      |
| 1975         | 279                    | 182                         | 3,589<br>3,123         | 224<br>15  | 516               | 954<br>823                     | 390<br>225           | 5,672              | NA   |                                     |                         | 14,596<br>16,765               |                              |   |                      |
| 1980<br>1985 | 243<br>197             | 190<br>158                  | 3,123<br>2,449         | 15<br>11   | 333<br>438        | 823<br>699                     | 225<br>274           | 4,519<br>3,872     | NA<br>NA                                   |                                     |                         | 16,765<br>18,421               |                              |   |                      |
| 1990         | 214                    | 159                         | 2,449                  | 18         | 646               | 770                            | 71                   | 3,516              | 0  |                                     |                         | 21,986                         |                              |   |                      |
| 1995         | 221                    | 194                         | 1,638                  | 102        | 792               | 77                             | 5                    | 2,614              | 0  |                                     |                         | 32,153                         |                              |   |                      |
| 1996<br>1997 | 238<br>167             | 201<br>192                  | 1,766<br>1,917         | 149        | 1,063<br>1,005    | 77<br>76                       | 5<br>55              | 3,060<br>3,108     | 0  |                                     |                         | 32,896<br>33,231               |                              |   |                      |
| 1998         | 129                    | 163                         | 1,506                  | 56<br>66   | 939               | 208                            | 2                    | 2,720              | 0  |                                     |                         | 34,710                         |                              |   |                      |
| 1999         | 18                     | 179                         | 1,401                  | 37         | 1,064             | 171                            | 3                    | 2,676              | 0  |                                     |                         | 36,040                         |                              |   |                      |
| 2000<br>2001 | 12<br>8                | 187<br>174                  | 1,577<br>1,525         | 33<br>35   | 1,095<br>1,368    | 159<br>433                     | 5<br>17              | 2,868<br>3,378     | 0  |                                     |                         | 36,793<br>35,925               |                              |   |                      |
| 2002         | 234                    | 176                         | 966                    | 28         | 1,461             | 247                            | 64                   | 2,767              | 0  |                                     |                         | 36,835                         |                              |   |                      |
| 2003         | 28                     | 186                         | 1,184                  | 19         | 1,582             | 203                            | 90                   | 3,078              | 0  |                                     |                         | 35,391                         |                              |   |                      |
| 2004<br>2005 | 161<br>141             | 175<br>175                  | 1,063<br>1,267         | 22<br>28   | 1,547<br>933      | 191<br>207                     | 49<br>4              | 2,872<br>2,440     | 0  |                                     |                         | 38,632<br>39,600               |                              |   |                      |
| 2006         | 8                      | 154                         | 1,337                  | 26         | 915               | 91<br>82                       | 2                    | 2,370              | ŏ  |                                     |                         | 39,299                         |                              |   |                      |
| 2007         | 155                    | 164                         | 1,128                  | 8          | 911               | 82                             | 0                    | 2,129              | 0  |                                     |                         | 40,047                         |                              |   |                      |
| 2008<br>2009 | 190<br>246             | 172<br>164                  | 1,055<br>1,358         | 8          | 998<br>690        | 84<br>127                      | 56<br>12             | 2,200<br>2,195     | 0  |                                     |                         | 38,974<br>37,870               |                              |   |                      |
| 2010         | 177                    | 164<br>152                  | 1,130                  | 13         | 689               | 82                             | 76                   | 1.990              | ŏ  |                                     |                         | 38,123                         |                              |   |                      |
| 2011         | 163                    | 164                         | 1,240                  | 9          | R 644             | 79                             | 98                   | R 2,071            | 0  |                                     |                         | 38,613                         |                              |   |                      |
| 2012<br>2013 | 90<br>73               | 145<br>172                  | 1,172<br>1,337         | 3<br>7     | 762<br>954        | 78<br>81                       | 47<br>1              | 2,063<br>2,379     | 0  |                                     |                         | 38,514<br>37,698               |                              |   |                      |
| 2014         | 68                     | 186                         | 1,161                  | 9          | 880               | 3,257                          | 4                    | 5,312              | Ö  |                                     |                         | 37,349                         |                              |   |                      |
|              |                        |                             |                        |            |                   |                                |                      | Trillion Btu       |  |                                     |                         |                                |                              |   |                      |
| 1960<br>1965 | 24.3<br>18.7           | 44.5<br>86.0                | 18.7<br>17.6           | 3.2<br>5.4 | 0.7<br>0.9        | 1.7<br>2.8                     | 7.4<br>5.3           | 31.7<br>31.9       | NA<br>NA                                   | 0.4<br>0.3                          | NA<br>NA                | 21.8<br>31.1                   | 122.8<br>168.1               | 53.8<br>74.3                            | 176.6<br>242.4       |
| 1970         | 9.0                    | 134.7                       | 20.3<br>20.9           | 2.3        | 1.7               | 4.2<br>5.0                     | 3.5<br>2.4           | 32.0               | NA   | 0.3<br>0.3                          | NΔ                      | 44.4                           | 220.4                        | 107.5                                   | 327.9                |
| 1975         | 6.5                    | 186.4                       | 20.9                   | 1.3        | 2.0               | 5.0                            | 2.4                  | 31.6               | NA   | 0.3                                 | NA<br>NA                | 49.8                           | 274.6                        | 119.5                                   | 394.1                |
| 1980<br>1985 | 5.9<br>4.8             | 194.0<br>161.4              | 18.2<br>14.3           | 0.1<br>0.1 | 1.3<br>1.7        | 4.3<br>3.7                     | 1.4<br>1.7           | 25.3<br>21.4       | NA<br>NA                                   | 1.0<br>1.0                          | NA<br>NA                | 57.2<br>62.9                   | 283.5<br>250.9               | 137.4<br>144.0                          | 420.9<br>394.9       |
| 1990         | 5.3                    | 166.5                       | 11.7                   | 0.1        | 2.5               | 4.0                            | 0.4                  | 18.8               | 0.0  | 7.3                                 | 0.0                     | 75.0                           | 269.2                        | 191.4                                   | 460.6                |
| 1995<br>1996 | 5.4<br>5.9             | 201.9                       | 9.5<br>10.3            | 0.6<br>0.8 | 3.0<br>4.1        | 0.4<br>0.4                     | (s)                  | 13.6<br>15.6       | 0.0<br>0.0                                 | 9.0<br>10.8                         | 0.1<br>0.1              | 109.7<br>112.2                 | 335.2<br>348.4               | 237.1<br>251.3                          | 572.4<br>599.7       |
| 1997         | 4.1                    | 208.3<br>200.0              | 11.2                   | 0.8        | 3.9               | 0.4                            | (s)<br>0.3           | 16.1               | 0.0  | 11.0                                | 0.1                     | 113.4                          | 340.1                        | 257.4                                   | 597.5                |
| 1998         | 3.2                    | 171.1                       | 8.8                    | 0.4        | 3.6               | 1.1                            | (s)                  | 13.8               | 0.0  | 9.4                                 | 0.2                     | 118.4                          | 311.7                        | 278.8                                   | 590.6                |
| 1999<br>2000 | 0.4<br>0.3             | 186.8<br>193.6              | 8.2<br>9.2             | 0.2<br>0.2 | 4.1<br>4.2        | 0.9<br>0.8                     | (s)                  | 13.4<br>14.4       | 0.0<br>0.0                                 | 9.4<br>8.6                          | 0.2<br>0.2              | 123.0<br>125.5                 | 329.0<br>340.1               | 283.2<br>292.4                          | 612.2<br>632.5       |
| 2001         | 0.2                    | 179.1                       | 8.9                    | 0.2        | 5.2               | 2.3                            | (s)<br>0.1           | 16.7               | 0.0  | 2.6                                 | 0.2                     | 122.6                          | 320.6                        | 284.6                                   | 605.2                |
| 2002         | 5.5                    | 179.7                       | 5.6                    | 0.2        | 5.6               | 1.3                            | 0.4                  | 13.1               | 0.0  | 6.5                                 | 0.3                     | 125.7                          | 330.7                        | 291.3                                   | 622.0                |
| 2003<br>2004 | 0.7<br>3.9             | 191.7<br>179.6              | 6.9<br>6.2             | 0.1<br>0.1 | 6.1<br>5.9        | 1.1<br>1.0                     | 0.6<br>0.3           | 14.7<br>13.5       | 0.0<br>0.0                                 | 6.5<br>7.0                          | 0.4<br>0.4              | 120.8<br>131.8                 | 334.7<br>336.3               | 277.3<br>306.2                          | 612.0<br>642.6       |
| 2005         | 3.4                    | 177.2                       | 7.4                    | 0.1        | 3.6               | 1.1                            | (s)                  | 12.2               | 0.0  | 8.3                                 | 0.5                     | 135.1                          | 336.7                        | 315.3                                   | 652.1                |
| 2006         | 0.2                    | 156.7                       | 7.8                    | 0.1        | 3.5               | 0.5                            | (s)                  | 11.9               | 0.0  | 8.3                                 | 0.5                     | 134.1                          | 311.7                        | 311.7                                   | 623.4                |
| 2007<br>2008 | 3.8<br>4.9             | 167.4<br>176.3              | 6.5<br>6.1             | (s)<br>(s) | 3.5<br>3.8        | 0.4<br>0.4                     | 0.ó<br>0.4           | 10.5<br>10.7       | 0.0<br>0.0                                 | 8.7<br>9.1                          | 0.5<br>0.6              | 136.6<br>133.0                 | 327.5<br>334.5               | 315.5<br>298.9                          | 642.9<br>633.4       |
| 2009         | 6.4                    | 167.2                       | 7.8                    | (s)<br>0.1 | 2.6               | 0.6                            | 0.1                  | 11.3               | 0.0  | 7.3                                 | 0.7                     | 129.2                          | 322.1                        | 279.6                                   | 601.7                |
| 2010         | 4.6                    | 154.8                       | 6.5                    |            | 2.6               | 0.4                            | 0.5                  | 10.1               | 0.0  | 7.5                                 | 0.7                     | 130.1                          | 307.8                        | 285.8                                   | 593.6                |
| 2011<br>2012 | 4.1<br>2.1             | 165.8<br>147.1              | 7.2<br>6.8             | 0.1<br>(s) | R 2.5<br>2.9      | 0.4<br>0.4                     | 0.6<br>0.3           | R 10.7<br>10.4     | 0.0<br>0.0                                 | 7.5<br>7.8                          | 1.1<br>0.9              | 131.7<br>131.4                 | R 320.9<br>299.7             | 289.3<br>281.3                          | R 610.3<br>581.0     |
| 2013         | 1.7                    | R 174.3                     | 7.7                    | (s)        | 3.7               | 0.4                            | (s)                  | 11.8               | 0.0  | 7.2<br>7.4                          | 0.9                     | 128.6                          | R 324.5                      | R 275.2                                 | R 599.7              |
| 2014         | 1.6                    | 190.3                       | 6.7                    | 0.1        | 3.4               | 16.5                           | (s)                  | 26.6               | 0.0  | 7.4                                 | 0.9                     | 127.4                          | 354.3                        | 270.5                                   | 624.8                |
|              |                        |                             |                        |            |                   |                                |                      |                    |  |                                     |                         |                                |                              |   |                      |

<sup>&</sup>lt;sup>a</sup> Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.

are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.

b Liquefied petroleum gases, includes ethane and olefins.

<sup>&</sup>lt;sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

d Includes small amounts of petroleum coke not shown separately.

<sup>&</sup>lt;sup>e</sup> Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be

separately identified.

There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.

Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
 Distributed solar thermal and photovoltaic energy consumed in the commercial sector is included in residential consumption. For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column. Beginning in 2008, includes small amounts of solar and wind energy consumed by commercial plants with capacity of 1 megawatt or greater. Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which

Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

<sup>- – =</sup> Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Totals may not equal sum of components due to independent rounding. • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. • The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT6. Industrial Sector Energy Consumption Estimates, Selected Years, 1960-2014, Michigan

|              |                        |                             |                        |                  | Petro                          | leum                 |                    |                      |  | Bio                              | mass                                       |                              |                                |                              |   |                      |
|--------------|------------------------|-----------------------------|------------------------|------------------|--------------------------------|----------------------|--------------------|----------------------|--|----------------------------------|--|------------------------------|--------------------------------|------------------------------|---|----------------------|
|              | Coal                   | Natural<br>Gas <sup>a</sup> | Distillate<br>Fuel Oil | LPG b            | Motor<br>Gasoline <sup>c</sup> | Residual<br>Fuel Oil | Other d            | Total                | Hydro-<br>electric<br>Power <sup>e,f</sup> |                                  |  |                              | Retail<br>Electricity<br>Sales |                              | Electrical                              |                      |
| Year         | Thousand<br>Short Tons | Billion<br>Cubic Feet       |                        |                  | Thousan                        | d Barrels            |                    |                      | Million<br>kWh                             | Wood and<br>Waste <sup>f,g</sup> | Losses<br>and Co-<br>products <sup>h</sup> | Geo-<br>thermal <sup>f</sup> | Million<br>kWh                 | Net<br>Energy <sup>f,i</sup> | System<br>Energy<br>Losses <sup>j</sup> | Total <sup>f,i</sup> |
| 1960<br>1965 | 13,011<br>15,193       | 117<br>192                  | 7,091<br>7,518         | 524<br>923       | 3,151<br>2,694                 | 9,574<br>6,660       | 10,949<br>13,665   | 31,288<br>31,460     | 212<br>146                                 |                                  |  | <br>                         | 12,482<br>19,350               |                              |   |                      |
| 1970         | 13,061                 | 262                         | 8,502                  | 854              | 2,758                          | 4,557                | 13,367             | 30,038               | 123  |                                  |  |                              | 25,169                         |                              |   |                      |
| 1975         | 9,885                  | 300                         | 8,749                  | 1,239            | 1,889                          | 3,343                | 12,239             | 27,460               | 121  |                                  |  |                              | 28,866                         |                              |   |                      |
| 1980<br>1985 | 8,652<br>6.645         | 249<br>190                  | 4,804<br>4,408         | 2,637<br>8.725   | 967<br>1,192                   | 3,213<br>2,213       | 13,129<br>8,405    | 24,750<br>24,944     | 117<br>117                                 |                                  |  |                              | 30,656<br>33,704               |                              |   |                      |
| 1990         | 4,719                  | 290                         | 3,957                  | 6,926            | 976                            | 1,416                | 10,635             | 23,911               | 23   |                                  |  |                              | 35,062                         |                              |   |                      |
| 1995<br>1996 | 4,383<br>4,283         | 254<br>260                  | 3,457<br>3,889         | 4,826<br>5.425   | 1,310<br>1,418                 | 402<br>415           | 11,392<br>10,653   | 21,387<br>21,800     | 27<br>29                                   |                                  |  |                              | 33,921<br>34,499               |                              |   |                      |
| 1997         | 3,770                  | 255                         | 3,986                  | 2,361            | 1,271                          | 415                  | 14,779             | 22,812               | 26   |                                  |  |                              | 35,430                         |                              |   |                      |
| 1998         | 3,857                  | 224<br>248                  | 4,122                  | 1,127            | 1,097                          | 400<br>332           | 13,850             | 20,597               | 25   |                                  |  |                              | 35,983                         |                              |   |                      |
| 1999<br>2000 | 4,636<br>4,004         | 248<br>247                  | 4,909<br>4,055         | 2,323<br>3,006   | 1,017<br>1,060                 | 622                  | 13,602<br>12,207   | 22,184<br>20,951     | 26<br>27                                   |                                  |  | ==                           | 37,276<br>37,268               |                              |   |                      |
| 2001         | 3,793                  | 233                         | 3,494                  | 2,434            | 1,835                          | 352                  | 10,388             | 18,504               | 26   |                                  |  |                              | 34,174                         |                              |   |                      |
| 2002<br>2003 | 2,781<br>2,840         | 250<br>222                  | 2,767<br>3,229         | 3,457<br>2,984   | 1,931<br>2,018                 | 344<br>713           | 10,194<br>11,077   | 18,693<br>20,020     | 29<br>75                                   |                                  | ==   |                              | 33,537<br>39,813               |                              |   |                      |
| 2003         | 3,012                  | 219                         | 3,229                  | 5,110            | 2,018                          | 687                  | 11,077             | 23,160               | 30   |                                  |  |                              | 34,867                         |                              |   | ==                   |
| 2005         | 3,017                  | 222                         | 3,475                  | 6,279            | 2,237                          | 909                  | 10,913             | 23,813               | 29   |                                  |  |                              | 34,745                         |                              |   |                      |
| 2006<br>2007 | 3,132<br>2,922         | 199<br>156                  | 3,020<br>3,154         | 4,407<br>4,112   | 2,378<br>2,218                 | 736<br>967           | 9,864<br>10,317    | 20,405<br>20,768     | 32<br>26                                   |                                  |  |                              | 34,093<br>33,879               |                              |   | ==                   |
| 2008         | 3,204                  | 149                         | 3,415                  | 1,003            | 1,883                          | 982                  | 8 304              | 15 677               | 26   |                                  |  |                              | 32,505                         |                              |   |                      |
| 2009         | 1,850                  | 137                         | 3,091                  | 988              | 1,442                          | 342                  | R 8,371            | R 14,234             | 25   |                                  |  |                              | 27,391                         |                              |   |                      |
| 2010<br>2011 | 2,621<br>2,636         | 152<br>158                  | 3,224<br>3,208         | 910<br>R 977     | 1,254<br>1,206                 | 154<br>218           | R 8,365<br>R 7,693 | R 13,907<br>R 13,302 | 28<br>29                                   |                                  |  |                              | 30,841<br>31,624               |                              |   |                      |
| 2012         | 2,291                  | 167                         | 2,825                  | 1 003            | 1 316                          | 188                  | R 8 067            | R 13.488             | 26   |                                  |  |                              | 31,836                         |                              |   |                      |
| 2013<br>2014 | 2,588<br>2,474         | 179<br>188                  | 3,322<br>3,173         | R 1,144<br>1,132 | R 1,385<br>976                 | 138<br>73            | R 9,254<br>9,929   | R 15,241<br>15,284   | 29<br>29                                   |                                  |  |                              | 31,322<br>32,446               |                              |   |                      |
| 2014         | 2,474                  | 100                         | 3,173                  | 1,132            | 970                            | 73                   | 9,929              |                      | Ilion Btu                                  |                                  |  |                              | 32,440                         |                              |   |                      |
| 4000         | 200.0                  | 101.0                       | 44.0                   | 0.0              | 40.5                           | 00.0                 | 00.0               |                      |  | 440                              | NIA.                                       | NIA.                         | 40.0                           | 200.5                        | 405.0                                   | 004.0                |
| 1960<br>1965 | 332.0<br>385.6         | 121.3<br>195.1              | 41.3<br>43.8           | 2.2<br>3.8       | 16.5<br>14.2                   | 60.2<br>41.9         | 66.3<br>80.4       | 186.5<br>184.0       | 2.3<br>1.5                                 | 14.8<br>18.8                     | NA<br>NA                                   | NA<br>NA                     | 42.6<br>66.0                   | 699.5<br>851.0               | 105.3<br>157.6                          | 804.8<br>1,008.6     |
| 1970         | 320.9                  | 265.7                       | 49.5                   | 3.2              | 14.5                           | 28.7                 | 80.2               | 176.1                | 1.3  | 19.5                             | NA   | NA                           | 85.9                           | 869.3                        | 207.7                                   | 1,077.1              |
| 1975<br>1980 | 246.7<br>219.4         | 307.7<br>253.7              | 51.0<br>28.0           | 4.5<br>9.6       | 9.9<br>5.1                     | 21.0<br>20.2         | 74.1<br>78.2       | 160.5<br>141.1       | 1.3<br>1.2                                 | 19.7<br>47.2                     | NA<br>NA                                   | NA<br>NA                     | 98.5<br>104.6                  | 834.4<br>767.2               | 236.2<br>251.3                          | 1,070.7<br>1,018.5   |
| 1985         | 169.9                  | 194.2                       | 25.7                   | 30.9             | 6.3                            | 13.9                 | 51.1               | 127.9                | 1.2  | 55.3                             | 0.0  | NA<br>NA                     | 115.0                          | 662.8                        | 263.4                                   | 926.1                |
| 1990         | 117.9                  | 302.6                       | 23.1                   | 24.7             | 5.1                            | 8.9                  | 65.2               | 127.0                | 0.2  | 36.5                             | 0.0  | 0.0                          | 119.6                          | 697.3                        | 305.2                                   | 1,002.5              |
| 1995<br>1996 | 109.2<br>107.5         | 264.4<br>268.8              | 20.1<br>22.6           | 17.2<br>19.3     | 6.8<br>7.4                     | 2.5<br>2.6           | 70.9<br>65.5       | 117.6<br>117.4       | 0.3<br>0.3                                 | 44.7<br>53.3                     | 0.0<br>0.0                                 | 0.0<br>0.0                   | 115.7<br>117.7                 | 646.2<br>659.4               | 250.2<br>263.5                          | 896.3<br>922.9       |
| 1997         | 95.1                   | 265.7                       | 23.2                   | 8.4              | 6.6                            | 2.6                  | 92.9               | 133.7                | 0.3  | 51.4                             | 0.0  | 0.0                          | 120.9                          | 661.2                        | 274.5                                   | 935.7                |
| 1998         | 97.9                   | 234.9<br>258.6              | 24.0                   | 4.0              | 5.7                            | 2.5                  | 86.2               | 122.5                | 0.3  | 49.6                             | 0.0  | 0.0                          | 122.8                          | 622.1                        | 289.1<br>292.9                          | 911.1                |
| 1999<br>2000 | 120.0<br>104.8         | 258.6<br>256.2              | 28.6<br>23.6           | 8.3<br>10.6      | 5.3<br>5.5                     | 2.1<br>3.9           | 84.5<br>76.1       | 128.7<br>119.7       | 0.3<br>0.3                                 | 51.4<br>50.4                     | 0.0  | 0.0<br>0.0                   | 127.2<br>127.2                 | 680.4<br>655.2               | 292.9<br>296.1                          | 973.3<br>951.4       |
| 2001         | 99.0                   | 240.5                       | 20.3                   | 8.6              | 9.6                            | 2.2                  | 65.2               | 106.0                | 0.3  | 35.5                             | 0.0  | 0.0                          | 116.6                          | 596.7                        | 270.7                                   | 867.4                |
| 2002         | 72.8                   | 254.7                       | 16.1                   | 12.3             | 10.1                           | 2.2                  | 63.7               | 104.3                | 0.3  | 25.7                             | 0.0  | 0.0                          | 114.4                          | 572.3                        | 265.2<br>312.0                          | 837.5                |
| 2003<br>2004 | 74.6<br>78.2           | 229.0<br>224.2              | 18.8<br>21.2           | 10.6<br>18.2     | 10.5<br>12.0                   | 4.5<br>4.3           | 69.2<br>71.6       | 113.6<br>127.3       | 0.8<br>0.3                                 | 35.4<br>37.3                     | 2.6<br>2.9                                 | 0.0<br>0.0                   | 135.8<br>119.0                 | 591.8<br>589.1               | 276.4                                   | 903.8<br>865.5       |
| 2005         | 77.5                   | 225.4                       | 20.2                   | 22.3             | 11.6                           | 5.7                  | 68.9               | 128.8                | 0.3  | 36.3                             | 2.7  | 0.0                          | 118.5                          | 589.5                        | 276.7                                   | 866.2                |
| 2006<br>2007 | 80.0<br>75.6           | 202.4<br>159.7              | 17.5<br>18.2           | 15.6<br>14.5     | 12.3<br>11.4                   | 4.6<br>6.1           | 62.0<br>64.0       | 112.1<br>114.3       | 0.3<br>0.3                                 | 34.1<br>34.7                     | 4.5<br>10.5                                | 0.0<br>0.0                   | 116.3<br>115.6                 | 549.8<br>510.6               | 270.4<br>266.9                          | 820.2<br>777.5       |
| 2008         | 82.7                   | 152.2                       | 19.7                   | 3.5              | 9.7                            | 6.2                  | F1 0               | 90.9<br>R 82.9       | 0.3  | 35.2                             | 12.6                                       | 0.0                          | 110.9                          | 484.8                        | 249.3                                   | 73/11                |
| 2009         | 47.1                   | 140.0                       | 17.9                   | 3.4              | 7.4                            | 2.1                  | R 52 1             | R 82.9               | 0.2  | 32.5                             | 11.8                                       | 0.0                          | 93.5                           | R 408 0                      | 202.2                                   | R 610.2              |
| 2010<br>2011 | 67.1<br>66.7           | 154.1<br>160.4              | 18.6<br>18.5           | 3.2<br>R 3.4     | 6.4<br>6.1                     | 1.0<br>1.4           | R 52.0<br>R 47.6   | R 81.1<br>R 77.0     | 0.3<br>0.3                                 | 35.3<br>R 43.9                   | 14.7<br>14.9                               | 0.0<br>0.0                   | 105.2<br>107.9                 | R 457.9<br>R 471.1           | 231.2<br>237.0                          | R 689.0<br>R 708.0   |
| 2012         | 59.8                   | 170.0                       | 16.3                   | 3.8              | 6.7                            | 1.2                  | R 49.9             | R 77.9               | 0.2  | H 44 3                           | 14.0                                       | 0.0                          | 108.6                          | R 474.8                      | 232.5                                   | R 707.3              |
| 2013<br>2014 | 67.6<br>62.7           | R 182.1<br>191.8            | 19.2<br>18.3           | 4.0<br>3.9       | 7.0<br>4.9                     | 0.9<br>0.5           | R 56.4<br>60.6     | R 87.4<br>88.2       | 0.3<br>0.3                                 | R 42.7<br>43.0                   | 14.6<br>14.9                               | 0.0                          | 106.9<br>110.7                 | R 501.5<br>511.7             | R 228.6<br>235.0                        | R 730.2<br>746.7     |
| 2014         | 02.7                   | 191.5                       | 10.3                   | 3.9              | 4.9                            | 0.5                  | 0.00               | 00.2                 | 0.3  | 43.0                             | 14.9                                       | 0.0                          | 110.7                          | 311.7                        | 200.0                                   | 740.7                |

a Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.

plants with capacity of 1 megawatt or greater. Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.

b Liquefied petroleum gases, includes ethane and olefins.

<sup>&</sup>lt;sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

d Includes asphalt and road oil, kerosene, lubricants, and the 16 other petroleum products as described in the Technical Notes, Section 4, "Other Petroleum Products.

<sup>&</sup>lt;sup>e</sup> Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.

<sup>f</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of

renewable energy sources beginning in 1989.

<sup>9</sup> Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

h Losses and co-products from the production of fuel ethanol.

Distributed solar thermal and photovoltaic energy consumed in the industrial sector is included in residential consumption. For 1981 through 1992, includes fuel ethanol blended into motor gasoline but not shown in the motor gasoline column. Beginning in 2008, includes small amounts of solar and wind energy consumed by industrial

J Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology. kWh = Kilowatthours. -- = Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Totals may not equal sum of components due to independent rounding. • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. • The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

M Table CT7. Transportation Sector Energy Consumption Estimates, Selected Years, 1960-2014, Michigan

|              |                        |                             |                      |                            |                          | P                | etroleum          |                                |                      |                               |                                |                              |                               |                      |
|--------------|------------------------|-----------------------------|----------------------|----------------------------|--------------------------|------------------|-------------------|--------------------------------|----------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|----------------------|
|              | Coal                   | Natural<br>Gas <sup>a</sup> | Aviation<br>Gasoline | Distillate<br>Fuel Oil     | Jet<br>Fuel <sup>b</sup> | LPG <sup>c</sup> | Lubricants        | Motor<br>Gasoline <sup>d</sup> | Residual<br>Fuel Oil | Total                         | Retail<br>Electricity<br>Sales |                              | Electrical<br>System          |                      |
| Year         | Thousand<br>Short Tons | Billion<br>Cubic Feet       |                      |                            |                          | Thou             | sand Barrels      |                                |                      |                               | Million<br>Kilowatthours       | Net<br>Energy <sup>e,f</sup> | Energy<br>Losses <sup>9</sup> | Total <sup>e,f</sup> |
| 1960         | 223<br>50              | 3<br>5                      | 1,312                | 2,475                      | 3,369                    | 21               | 1,277             | 62,307                         | 728                  | 71,489<br>87,097              | 9                              |                              |                               |                      |
| 1965<br>1970 | 50<br>21               | 5<br>10                     | 2,619                | 3,348                      | 4,377                    | 34<br>62         | 1,126             | 74,814<br>93,269               | 779<br>427           | 87,097                        | 0                              |                              |                               |                      |
| 1975         | 2                      | 10                          | 718<br>347           | 6,353<br>8,949             | 7,365<br>5,700           | 62<br>95         | 1,324<br>1,321    | 105,412                        | 423                  | 109,518<br>122,248            | 0                              |                              |                               |                      |
| 1980         | 0                      | 12                          | 488                  | 9.741                      | 6,646                    | 128              | 1,477             | 95 235                         | 232                  | 113,946                       | 0                              |                              |                               |                      |
| 1985<br>1990 | 0                      | 11<br>18                    | 201<br>215           | 12,328<br>13,207           | 6,570<br>10,057          | 291<br>283       | 1,344<br>1,513    | 91,556<br>98,167               | 99<br>92             | 113,946<br>112,389<br>123,533 | 0                              |                              |                               |                      |
| 1995         | ŏ                      | 25                          | 231                  | 18 125                     | 8.818                    | 241              | 1.443             | 109.159                        | 94                   | 138,111<br>138,970<br>142,276 | 4                              |                              |                               |                      |
| 1996         | 0                      | 26                          | 215                  | 18,940<br>19,815           | 9,045<br>9,487           | 224              | 1,401             | 109,025                        | 123                  | 138,970                       | 5                              |                              |                               |                      |
| 1997<br>1998 | 0                      | 24<br>21                    | 197<br>167           | 19,815<br>21,145           | 9,487<br>9,033           | 204<br>804       | 1,480<br>1,549    | 111,042                        | 52<br>82             | 142,276<br>146 388            | 4                              |                              |                               |                      |
| 1999         | ő                      | 23                          | 286                  | 21,764                     | 9,116                    | 352              | 1,565             | 113,608<br>119,839             | 36                   | 146,388<br>152,958            | 4                              |                              |                               |                      |
| 2000         | 0                      | 27                          | 205                  | 21.915                     | 7,214                    | 266              | 1,542             | 116.941                        | 48                   | 148 131                       | 4                              |                              |                               |                      |
| 2001<br>2002 | 0                      | 22<br>27                    | 79<br>167            | 21,472<br>22,514           | 6,219<br>6,016           | 151<br>183       | 1,412<br>1,396    | 117,204<br>119,567             | 71<br>47             | 146,608<br>149,891            | 5                              | ==                           |                               |                      |
| 2002         | Ö                      | 27                          | 89                   | 23.163                     | 2.695                    | 212              | 1,290             | 116,798                        | 198                  | 144,445                       | 3                              |                              |                               |                      |
| 2004         | 0                      | 28                          | 80                   | 23,993<br>23,256           | 3,733<br>3,431           | 397              | 1.307             | 116.468                        | 251<br>197           | 144,445<br>146,228<br>145,916 | 3                              |                              |                               |                      |
| 2005<br>2006 | 0                      | 28<br>26                    | 84<br>67             | 23,256<br>23,767           | 3,431<br>4,124           | 509<br>231       | 1,300<br>1,267    | 117,139<br>115,637             | 197<br>232           | 145,916                       | 5                              |                              |                               |                      |
| 2007         | Ö                      | 26                          | 76                   | 23,422                     | 5,270                    | 278              | 1,308             | 113.760                        | 288                  | 145,325<br>144,401<br>136,629 | 5                              |                              | ==                            |                      |
| 2007<br>2008 | 0                      | 24                          | 76<br>74             | 23,422<br>20,749           | 4,641                    | 289              | 1,215             | 109,444                        | 218                  | 136,629                       | 5                              |                              |                               |                      |
| 2009<br>2010 | 0                      | 24<br>25                    | 62<br>118            | 20,008                     | 4,270<br>3,663           | 227<br>202       | 1,092<br>1,213    | 108,134                        | 134<br>246           | 133,927                       | 5<br>5                         |                              |                               |                      |
| 2010         | 0                      | 25<br>24                    | 111                  | 20,008<br>21,161<br>21,252 | 3,213                    | 361              | 1,151             | 107,099<br>104,587             | 328                  | 133,927<br>133,702<br>131,002 | 5                              |                              |                               |                      |
| 2012         | Ö                      | 21                          | 102<br>R 92          | 20.997                     | 3.628                    | 344              | 1,059             | 103,658<br>R 107,612           | 225                  | 130,014<br>R 136,635          | 7                              |                              |                               |                      |
| 2013<br>2014 | 0                      | 19<br>20                    | H 92<br>66           | 23,149                     | 3,889<br>3,981           | R 532<br>382     | 1,121<br>1,169    | H 107,612                      | 240<br>181           | H 136,635<br>134,739          | 6<br>4                         | ==                           |                               |                      |
| 2014         | U                      | 20                          | 00                   | 23,746                     | 3,901                    | 302              |                   | 105,214<br>lion Btu            | 101                  | 134,739                       | 4                              |                              |                               | ==                   |
| 1000         |                        | 0.7                         | 6.6                  | 144                        | 10.0                     | 0.1              |                   |                                | 4.6                  | 270.0                         | (a)                            | 207.0                        | 0.1                           | 207.2                |
| 1960<br>1965 | 5.5<br>1.2             | 2.7<br>4.6                  | 13.2                 | 14.4<br>19.5               | 18.2<br>24.0             | 0.1              | 7.7<br>6.8        | 327.3<br>393.0                 | 4.6<br>4.9           | 378.9<br>461.5                | (s)<br>0.0                     | 387.2<br>467.4               | 0.1                           | 387.3<br>467.4       |
| 1970         | 0.5                    | 10.5                        | 3.6                  | 37.0                       | 41.0                     | 0.2              | 8.0               | 489.9                          | 2.7                  | 582.5                         | 0.0                            | 593.5                        | 0.0                           | 593.5                |
| 1975<br>1980 | (s)<br>0.0             | 10.5                        | 1.7<br>2.5           | 52.1<br>56.7               | 31.6<br>37.1             | 0.4<br>0.5       | 8.0               | 553.7<br>500.3                 | 2.7                  | 650.3<br>607.5                | 0.0<br>0.0                     | 660.8<br>620.1               | 0.0                           | 660.8<br>620.1       |
| 1985         | 0.0                    | 12.6<br>10.8                | 1.0                  | 71.8                       | 36.7                     | 1.1              | 9.0<br>8.2        | 480.9                          | 1.5<br>0.6           | 600.4                         | 0.0                            | 614.7                        | 0.0<br>0.0                    | 614.7                |
| 1990         | 0.0                    | 18.7                        | 1.1                  | 76.9                       | 56.6                     | 1.1              | 9.2               | 515.7                          | 0.6                  | 661.1<br>736.5                | 0.0                            | 683.9                        | 0.0                           | 683.9<br>762.5       |
| 1995<br>1996 | 0.0<br>0.0             | 25.9<br>26.9                | 1.2<br>1.1           | 105.5<br>110.2             | 50.0<br>51.3             | 0.9<br>0.9       | 8.8<br>8.5        | 569.6<br>568.9                 | 0.6<br>0.8           | 736.5<br>741.6                | (s)<br>(s)                     | 762.4<br>768.5               | (s)<br>(s)                    | 762.5<br>768.5       |
| 1996         | 0.0                    | 24.8                        | 1.0                  | 115.3                      | 53.8                     | 0.9              | 9.0               | 579.1                          | 0.8                  | 759.3                         | (S)<br>(S)                     | 784.1                        | (s)                           | 784.1                |
| 1998         | 0.0                    | 21.9                        | 0.8                  | 123.0                      | 51.2                     | 3.1              | 9.4               | 592.5                          | 0.5                  | 759.3<br>780.6                | (s)                            | 802.5                        | (s)<br>(s)                    | 784.1<br>802.5       |
| 1999<br>2000 | 0.0                    | 23.5<br>27.5                | 1.4                  | 126.6<br>127.5             | 51.7                     | 1.4              | 9.5               | 624.7<br>609.7                 | 0.2                  | 815.6<br>789.9<br>781.3       | (s)                            | 839.1                        |                               | 839.1<br>817.5       |
| 2000         | 0.0<br>0.0             | 27.5<br>23.0                | 1.0<br>0.4           | 127.5                      | 40.9<br>35.3             | 1.0<br>0.6       | 9.3<br>8.6        | 611.1                          | 0.3<br>0.4           | 789.9<br>781.3                | (S)                            | 817.4<br>804.3               | (s)<br>(s)                    | 817.5<br>804.3       |
| 2002         | 0.0                    | 27.5                        | 0.8                  | 131.0                      | 34.1                     | 0.7              | 8.5               | 623.1<br>607.7                 | 0.3                  | 798.5                         | (s)                            | 826.0                        | (s)                           | 826.1<br>796.4       |
| 2003         | 0.0                    | 28.3                        | 0.5                  | 134.8                      | 15.3                     | 0.8              | 7.8               | 607.7                          | 1.2                  | 798.5<br>768.1<br>777.9       | (s)                            | 796.4                        | (s)                           | 796.4                |
| 2004<br>2005 | 0.0<br>0.0             | 28.2<br>28.3                | 0.4<br>0.4           | 139.6<br>135.3             | 21.2<br>19.5             | 1.5<br>2.0       | 7.9<br>7.9<br>7.7 | 605.7<br>608.9                 | 1.6<br>1.2           | 775 1                         | (S)<br>(S)                     | 806.2<br>803.4               | (s)<br>(s)                    | 806.2<br>803.5       |
| 2006         | 0.0                    | 26.1                        | 0.3                  | 137.9                      | 23.4                     | 0.9              | 7.7               | 600.3                          | 1.5                  | 771.9<br>763.0                | (s)                            | 798.1                        | (s)                           | 798.1                |
| 2007         | 0.0                    | 26.6                        | 0.4                  | 135.5                      | 29.9                     | 1.1              | 7.9               | 586.4                          | 1.8                  | 763.0                         | (s)                            | 789.7                        | (s)                           | 789.7                |
| 2008<br>2009 | 0.0<br>0.0             | 24.2<br>24.2                | 0.4<br>0.3           | 119.9<br>115.7             | 26.3<br>24.2             | 1.1<br>0.9       | 7.4<br>6.6        | 561.0<br>551.6                 | 1.4<br>0.8           | 717.5<br>700 1                | (s)                            | 741.7<br>724.4               | (s)<br>(s)                    | 741.8<br>724.4       |
| 2010         | 0.0                    | 25.6                        | 0.6                  | 122.3                      | 20.8                     | 0.8              | 7.4               | 543.9                          | 1.5                  | 700.1<br>697.2                | (s)                            | 722.8                        | (s)                           | 722.8                |
| 2011         | 0.0                    | 24.2                        | 0.6                  | 122.8                      | 18.2                     | 1.4              | 7.0               | 530.0                          | 2.1                  | 682.0                         | (s)                            | 706.2                        | (s)<br>(s)<br>0.1             | 706.3                |
| 2012<br>2013 | 0.0<br>0.0             | 21.2<br>R 19.4              | 0.5<br>0.5           | 121.2<br>133.7             | 20.6<br>22.1             | 1.3<br>2.0       | 6.4<br>6.8        | 524.8<br>R 544.7               | 1.4<br>1.5           | 682.0<br>676.3<br>R 711.3     | (s)<br>(s)                     | 697.5<br>R 730.6             | 0.1<br>(s)                    | 697.6<br>R 730.7     |
| 2014         | 0.0                    | 20.2                        | 0.5<br>0.3           | 137.1                      | 22.6                     | 1.5              | 7.1               | 532.4                          | 1.1                  | 702.1                         | (s)                            | 722.3                        | (s)<br>(s)                    | 722.3                |
|              |                        |                             |                      |                            |                          |                  |                   |                                |                      |                               | . ,                            |                              | . ,                           |                      |

a Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors,

and, since 1990, natural gas consumed as vehicle fuel.

b Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Industrial sector, Other Petroleum."

C Liquefied petroleum gases, includes ethane and olefins.

C Liquefled petroleum gases, includes etnane and olerins.

d Beginning in 1993, motor gasoline includes fuel ethanol blended into the product.

e There is a discontinuity in this time series between 1980 and 1981 due to the expanded coverage of renewable energy sources beginning in 1981.

For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor

gasoline column.

<sup>&</sup>lt;sup>9</sup> Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

<sup>— — =</sup> Not applicable.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Totals may not equal sum of components due to independent rounding. • The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the Technical

Notes for each type of energy.

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.

Sources. Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT8. Electric Power Sector Consumption Estimates, Selected Years, 1960-2014, Michigan

|              |                        |                             |                                     | Petro             | oleum                             |                 | Needaan                      |                                     | Biomass                             |                         |                         |                   | Net                                  |                      |
|--------------|------------------------|-----------------------------|-------------------------------------|-------------------|-----------------------------------|-----------------|------------------------------|-------------------------------------|-------------------------------------|-------------------------|-------------------------|-------------------|--------------------------------------|----------------------|
|              | Coal                   | Natural<br>Gas <sup>a</sup> | Distillate<br>Fuel Oil <sup>b</sup> | Petroleum<br>Coke | Residual<br>Fuel Oil <sup>c</sup> | Total           | Nuclear<br>Electric<br>Power | Hydroelectric<br>Power <sup>d</sup> |                                     | Geothermal <sup>f</sup> | Solar/PV <sup>f,g</sup> | Wind <sup>f</sup> | Electricity<br>Imports <sup>fi</sup> |                      |
| Year         | Thousand<br>Short Tons | Billion<br>Cubic Feet       |                                     | Thousan           | d Barrels                         |                 | Million Ki                   | lowatthours                         | Wood<br>and<br>Waste <sup>e,f</sup> |                         | Million K               | ilowatthours      |                                      | Total <sup>f,i</sup> |
| 1960         | 10,300                 | 5                           | 77                                  | 0                 | 362                               | 440             | 0                            | 1,817                               |                                     | 0                       | NA                      | NA                | 1,250                                |                      |
| 1965<br>1970 | 16,123                 | 3                           | 68<br>965                           | 0                 | 316                               | 384             | 181                          | 1,667<br>1,581                      |                                     | 0                       | NA                      | NA<br>NA          | -413<br>-400                         |                      |
| 1970         | 20,124<br>20,914       | 64<br>57                    | 1,538                               | 0                 | 4,514<br>14,136                   | 5,479<br>15,674 | 375<br>7,176                 | 989                                 |                                     | 0                       | NA<br>NA                | NA<br>NA          | -400<br>320                          |                      |
| 1980         | 22,150                 | 26                          | 780                                 | ŏ                 | 9,621<br>522                      | 10,400          | 15,891                       | 1,083                               |                                     | ŏ                       | NA                      | NA                | 5,685                                |                      |
| 1985         | 25,896                 | 10                          | 646                                 | 0                 | 522                               | 1,168           | 13,452                       | 881                                 |                                     | 0                       | 0                       | 0                 | 391                                  |                      |
| 1990<br>1995 | 29,830<br>31,400       | 85<br>123                   | 341<br>410                          | 0                 | 1,149<br>1,101                    | 1,490<br>1,512  | 21,611<br>24,448             | 1,605<br>1,570                      |                                     | 0                       | 0                       | 0                 | -10,918<br>5,760                     |                      |
| 1996         | 32,405                 | 140                         | 300                                 | 3                 | 1,235<br>1,031                    | 1,539<br>1,343  | 26.829                       | 1.755                               |                                     | ő                       | ŏ                       | ŏ                 | 1,907                                |                      |
| 1997         | 32,158                 | 143                         | 312                                 | 0                 | 1,031                             |                 | 21,914                       | 1,686                               |                                     | 0                       | 0                       | 0                 | 1,380                                |                      |
| 1998<br>1999 | 34,253<br>33,854       | 148<br>150                  | 468<br>505                          | 103<br>65         | 1,630<br>2,120                    | 2,201<br>2,690  | 12,494<br>14,591             | 1,372<br>1,432                      |                                     | 0                       | 0                       | 0                 | -1,534<br>-219                       |                      |
| 2000         | 33,277                 | 135                         | 374                                 | 9                 | 1.683                             | 2,066           | 18,882                       | 1,401                               |                                     | 0                       | Ö                       | ő                 | -327                                 |                      |
| 2001         | 33,928                 | 133                         | 369                                 | 2<br>73           | 1,150<br>1,537                    | 1,522<br>2,145  | 26,711                       | 1.536                               |                                     | 0                       | 0                       | (s)               | -2.102                               |                      |
| 2002<br>2003 | 33,367<br>34,101       | 146<br>103                  | 535<br>484                          | 73                | 1,537<br>1,152                    | 2,145<br>1,697  | 31,087<br>27,954             | 1,640<br>1,310                      |                                     | 0                       | 0                       | (s)               | -2,234<br>-3,564                     |                      |
| 2003         | 35,312                 | 133                         | 393                                 | 60<br>17          | 1,112                             | 1,522           | 30,562                       | 1,509                               |                                     | 0                       | 0                       | 2                 | -3,204                               |                      |
| 2005         | 36,273                 | 131                         | 372                                 | 170               | 1,099                             | 1,641           | 32,872                       | 1,433                               |                                     | 0                       | 0                       | 2                 | -2,730                               |                      |
| 2006         | 34,926                 | 109                         | 302                                 | 218<br>252        | 231<br>529                        | 751             | 29,066                       | 1,488<br>1,244                      |                                     | 0                       | 0                       | 2                 | -2,117<br>-1,206                     |                      |
| 2007<br>2008 | 36,574<br>36,476       | 124<br>93                   | 295<br>287                          | 236               | 529<br>214                        | 1,076<br>738    | 31,517<br>31,484             | 1,244                               |                                     | 0                       | 0                       | 3<br>141          | -1,206<br>2,305                      |                      |
| 2009         | 35,330                 | 84                          | 257                                 | 234               | 127                               | 618             | 21,851                       | 1,347                               |                                     | ŏ                       | ŏ                       | 300               | 5,637                                |                      |
| 2010         | 34,976                 | 113                         | 255                                 | 220               | 117                               | 593<br>530      | 29,625                       | 1,222                               |                                     | 0                       | 0                       | 360               | 3,564                                |                      |
| 2011<br>2012 | 32,335<br>29,669       | 113<br>181                  | 321<br>223                          | 165<br>178        | 44<br>50                          | 530<br>451      | 32,889<br>28,020             | 1,328<br>1,189                      |                                     | 0                       | 0                       | 456<br>1,132      | 4,069<br>4,270                       |                      |
| 2012         | 31,653                 | 111                         | 223                                 | 624               | 28                                | 875             | 28,921                       | 1,390                               |                                     | 0                       | 0                       | 2,800             | R 5,818                              |                      |
| 2014         | 29,401                 | 112                         | 261                                 | 1,862             | 16                                | 2,139           | 31,246                       | 1,571                               |                                     | 0                       | 0                       | 3,868             | 5,844                                |                      |
|              |                        |                             |                                     |                   |                                   |                 | Trillion Btu                 |                                     |                                     |                         |                         |                   |                                      |                      |
| 1960         | 256.3                  | 5.4                         | 0.5                                 | 0.0               | 2.3                               | 2.7             | 0.0                          | 19.6                                | 0.0                                 | 0.0                     | NA                      | NA                | 4.3                                  | 288.2                |
| 1965<br>1970 | 399.9<br>487.0         | 3.0<br>65.2                 | 0.4                                 | 0.0<br>0.0        | 2.0<br>28.4                       | 2.4<br>34.0     | 2.1<br>4.1                   | 17.4<br>16.6                        | 0.0<br>0.0                          | 0.0<br>0.0              | NA<br>NA                | NA<br>NA          | -1.4<br>-1.4                         | 423.5<br>605.6       |
| 1975         | 494.9                  | 47.3                        | 5.6<br>8.9                          | 0.0               | 88.9                              | 97.8            | 79.0                         | 10.3                                | 0.0                                 | 0.0                     | NA<br>NA                | NA<br>NA          | 1.1                                  | 730.4                |
| 1980<br>1985 | 532.2                  | 19.4                        | 4.5<br>3.8                          | 0.0               | 60.5<br>3.3                       | 65.0<br>7.0     | 173.3<br>142.9               | 11.3                                | 0.0                                 | 0.0                     | NA                      | NA                | 19.4<br>1.3                          | 820.6<br>770.9       |
| 1985<br>1990 | 605.8<br>663.5         | 4.7<br>69.1                 | 3.8<br>2.0                          | 0.0<br>0.0        | 3.3<br>7.2                        | 7.0<br>9.2      | 142.9<br>228.7               | 9.2<br>16.7                         | 0.0<br>9.0                          | 0.0<br>0.0              | 0.0<br>0.0              | 0.0<br>0.0        | 1.3                                  | 770.9<br>957.4       |
| 1990         | 671.2                  | 105.1                       | 2.0                                 | 0.0               | 6.9                               | 9.2<br>9.3      | 256.9                        | 16.2                                | 9.0<br>19.7                         | 0.0                     | 0.0                     | 0.0               | -37.3<br>19.7                        | 1,095.6              |
| 1996         | 682.1                  | 122.1                       | 1.7                                 | (s)               | 7.8                               | 9.5             | 281.8                        | 18.1                                | 23.4                                | 0.0                     | 0.0                     | 0.0               | 6.5                                  | 1.140.8              |
| 1997<br>1998 | 681.4<br>725.3         | 124.5<br>131.4              | 1.8<br>2.7                          | 0.0<br>0.6        | 6.5                               | 8.3<br>13.6     | 230.0<br>131.1               | 17.2<br>14.0                        | 22.6<br>22.5                        | 0.0<br>0.0              | 0.0<br>0.0              | 0.0<br>0.0        | 4.7<br>-5.2                          | 1,085.8<br>1,029.2   |
| 1996         | 725.3                  | 131.4                       | 2.7                                 | 0.6               | 10.2<br>13.3                      | 16.7            | 152.5                        | 14.6                                | 22.5                                | 0.0                     | 0.0                     | 0.0               | -5.2<br>-0.7                         | 1,047.9              |
| 2000         | 694.7                  | 126.0                       | 2.9<br>2.2                          | 0.1               | 10.6                              | 12.8            | 196.9                        | 14.3                                | 25.6                                | 0.0                     | 0.0                     | 0.0               | -0.7<br>-1.1                         | 1,067.5              |
| 2001         | 690.5                  | 131.7                       | 2.2<br>3.1                          | (s)               | 7.2                               | 9.4             | 278.9                        | 15.9                                | 25.0                                | 0.0                     | 0.0                     | (s)               | -7.2<br>-7.6                         | 1,143.7              |
| 2002<br>2003 | 660.8<br>672.6         | 147.3<br>104.6              | 3.1<br>2.8                          | 0.4<br>0.4        | 9.7<br>7.2                        | 13.2<br>10.4    | 324.6<br>291.3               | 16.7<br>13.3                        | 24.8<br>24.8                        | 0.0<br>0.0              | 0.0                     | (s)<br>(s)        | -7.6<br>-12.2                        | 1,179.8<br>1,104.9   |
| 2004         | 691.2                  | 135.5                       | 2.3<br>2.2                          | 0.4               | 7.0                               | 9.4             | 318.7                        | 15.1                                | 25.3                                | 0.0                     | 0.0                     | (s)               | -10.9                                | 1.184.2              |
| 2005         | 718.2                  | 132.6                       |                                     | 1.0               | 6.9                               | 10.0            | 343.0                        | 14.3                                | 23.2                                | 0.0                     | 0.0                     | (s)               | -10.9<br>-9.3<br>-7.2                | 1,232.2              |
| 2006<br>2007 | 693.4<br>721.3         | 110.4<br>125.5              | 1.8<br>1.7                          | 1.2<br>1.4        | 1.5<br>3.3                        | 4.5<br>6.5      | 303.3<br>330.6               | 14.8<br>12.3                        | 23.2<br>22.1                        | 0.0<br>0.0              | 0.0<br>0.0              | (s)<br>(s)        | -7.2<br>-4.1                         | 1,142.3<br>1.214.1   |
| 2007         | 721.3<br>712.4         | 94.8                        | 1.7                                 | 1.4               | 3.3<br>1.3                        | 6.5<br>4.4      | 329.1                        | 13.2                                | 22.7                                | 0.0                     | 0.0                     | (S)<br>1.4        | 7.9                                  | 1,214.1              |
| 2009         | 682.5                  | 85.1                        | 1.5<br>1.5                          | 1.3<br>1.3        | 0.8                               | 3.6             | 228.5                        | 13.2                                | 22.0                                | 0.0                     | 0.0                     | 2.9               | 19.2<br>12.2                         | 1.057.1              |
| 2010         | 677.6                  | 114.8                       | 1.5                                 | 1.3               | 0.7                               | 3.5             | 309.6                        | 11.9                                | 21.9                                | 0.0                     | 0.0                     | 3.5               | 12.2                                 | 1,155.0              |
| 2011<br>2012 | 620.4<br>559.7         | 114.5<br>184.4              | 1.9<br>1.3                          | 0.9<br>1.0        | 0.3<br>0.3                        | 3.1<br>2.6      | 344.2<br>293.6               | 12.9<br>11.3                        | 22.9<br>22.3                        | 0.0<br>0.0              | 0.0<br>0.0              | 4.4<br>10.8       | 13.9<br>14.6                         | 1,136.3<br>1,099.3   |
| 2013         | 588.9                  | 113.0                       | 1.3                                 | 3.6               | 0.2                               | 5.0             | 302.2                        | 13.3                                | 23.2                                | 0.0                     | 0.0                     | 26.7              | R 19.9                               | R 1,092.2            |
| 2014         | 554.2                  | 114.3                       | 1.5                                 | 10.7              | 0.1                               | 12.3            | 326.8                        | 14.9                                | 24.7                                | 0.0                     | 0.0                     | 36.8              | 19.9                                 | 1,103.9              |
|              |                        |                             |                                     |                   |                                   |                 |                              |                                     |                                     |                         |                         |                   |                                      |                      |

<sup>&</sup>lt;sup>a</sup> Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.

b Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. For 1980 through 2000, distillate fuel oil includes fuel oil Nos. 1 and 2, and small amounts of kerosene and jet fuel.

C Prior to 1980, based on oil used in steam plants. For 1980 through 2000, residual fuel oil includes fuel oil Nos. 4, 5, and 6.
Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately

Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
 <sup>1</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
 Solar thermal and photovoltaic energy.

h Electricity traded with Canada and Mexico. Btu value calculated by converting net imports in kilowatthours by 3,412 Btu per kilowatthour. Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other

fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.

<sup>-- =</sup> Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than +0.5 and greater than -0.5 or Btu value less than +0.05 and greater than -0.05.

Notes: Totals may not equal sum of components due to independent rounding. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Through 1988, data are for electric utilities only. Beginning in 1989, data in 1989, data enter power producers. • The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at http://www.eia.gov/state/seds/seds-data-complete.cfm.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.