

Table ET1. Primary Energy, Electricity, and Total Energy Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                            | Primary Energy                    |            |         |                          |                     |                       |                  |                             |                   |                    |              |         |                          |                               | Electric Power Sector <sup>h,j</sup> | Retail Electricity | Total Energy <sup>g,h,i</sup> |
|---------------------------------|-----------------------------------|------------|---------|--------------------------|---------------------|-----------------------|------------------|-----------------------------|-------------------|--------------------|--------------|---------|--------------------------|-------------------------------|--------------------------------------|--------------------|-------------------------------|
|                                 | Coal                              |            |         | Natural Gas <sup>a</sup> | Petroleum           |                       |                  |                             |                   |                    | Nuclear Fuel | Biomass | Total <sup>g,h,i,j</sup> |                               |                                      |                    |                               |
|                                 | Coking Coal                       | Steam Coal | Total   |                          | Distillate Fuel Oil | Jet Fuel <sup>b</sup> | LPG <sup>c</sup> | Motor Gasoline <sup>d</sup> | Residual Fuel Oil | Other <sup>e</sup> |              | Total   |                          | Wood and Waste <sup>f,g</sup> |                                      |                    |                               |
|                                 |                                   |            |         |                          |                     |                       |                  |                             |                   |                    |              |         |                          |                               |                                      |                    |                               |
|                                 | Prices in Dollars per Million Btu |            |         |                          |                     |                       |                  |                             |                   |                    |              |         |                          |                               |                                      |                    |                               |
| 1970                            | 0.55                              | 0.42       | 0.44    | 0.77                     | 1.09                | 0.74                  | 1.90             | 2.71                        | 0.59              | 2.10               | 2.04         | 0.36    | 1.01                     | 1.13                          | 0.39                                 | 5.55               | 1.71                          |
| 1975                            | 2.07                              | 1.04       | 1.23    | 1.42                     | 2.49                | 2.08                  | 3.87             | 4.72                        | 1.96              | 3.85               | 3.75         | 0.28    | 1.29                     | 2.23                          | 1.04                                 | 9.78               | 3.34                          |
| 1980                            | 2.27                              | 1.61       | 1.71    | 3.05                     | 6.76                | 6.38                  | 6.78             | 10.09                       | 3.90              | 8.74               | 8.56         | 0.49    | 2.16                     | 4.35                          | 1.71                                 | 15.40              | 6.57                          |
| 1985                            | 2.08                              | 1.90       | 1.92    | 5.70                     | 7.69                | 6.09                  | 9.09             | 9.10                        | 4.45              | 10.98              | 8.75         | 0.80    | 2.30                     | 5.18                          | 1.74                                 | 19.88              | 8.46                          |
| 1990                            | 1.80                              | 1.62       | 1.63    | 4.16                     | 7.40                | 5.65                  | 10.62            | 8.78                        | 3.00              | 9.88               | 8.45         | 0.79    | 1.52                     | 4.46                          | 1.45                                 | 20.85              | 8.08                          |
| 1995                            | 1.57                              | 1.48       | 1.48    | 3.93                     | 6.90                | 3.93                  | 8.90             | 8.45                        | 2.61              | 9.30               | 7.97         | 0.65    | 1.20                     | 4.21                          | 1.40                                 | 20.72              | 7.95                          |
| 1996                            | 1.68                              | 1.43       | 1.44    | 4.23                     | 7.76                | 4.76                  | 10.56            | 9.20                        | 2.91              | 10.12              | 8.79         | 0.59    | 1.10                     | 4.50                          | 1.37                                 | 20.86              | 8.39                          |
| 1997                            | 1.75                              | 1.40       | 1.42    | 4.36                     | 7.56                | 4.56                  | 10.62            | 9.09                        | 3.10              | 8.73               | 8.57         | 0.59    | 1.01                     | 4.60                          | 1.39                                 | 20.68              | 8.47                          |
| 1998                            | 1.67                              | 1.36       | 1.38    | 4.18                     | 6.53                | 3.50                  | 9.33             | 8.05                        | 2.70              | 8.73               | 7.60         | 0.65    | 1.07                     | 4.32                          | 1.42                                 | 20.85              | 8.31                          |
| 1999                            | 1.74                              | 1.33       | 1.37    | 4.17                     | 7.23                | 3.89                  | 9.10             | 8.66                        | 2.60              | 8.91               | 8.13         | 0.60    | 1.16                     | 4.52                          | 1.39                                 | 20.94              | 8.42                          |
| 2000                            | 1.66                              | 1.32       | 1.35    | 4.44                     | 9.90                | 6.51                  | 11.94            | 11.87                       | 3.41              | 10.45              | 11.07        | 0.61    | 1.26                     | 5.51                          | 1.56                                 | 20.89              | 9.74                          |
| 2001                            | 1.73                              | 1.30       | 1.32    | 5.02                     | 9.38                | 5.80                  | 13.45            | 11.27                       | 3.83              | 10.96              | 10.81        | 0.48    | 1.87                     | 5.46                          | 1.40                                 | 20.48              | 9.94                          |
| 2002                            | 1.93                              | 1.34       | 1.36    | 5.34                     | 8.75                | 5.45                  | 11.53            | 10.62                       | 2.48              | 11.61              | 10.17        | 0.43    | 2.00                     | 5.37                          | 1.37                                 | 20.83              | 9.94                          |
| 2003                            | 1.93                              | 1.37       | 1.39    | 6.24                     | 10.05               | 6.68                  | 13.69            | 12.16                       | 4.31              | 11.26              | 11.65        | 0.42    | 1.89                     | 6.14                          | 1.41                                 | 20.14              | 10.78                         |
| 2004                            | 2.31                              | 1.43       | 1.46    | 7.24                     | 12.20               | 8.88                  | 15.00            | 14.40                       | 4.80              | 11.28              | 13.57        | 0.42    | 1.97                     | 7.02                          | 1.57                                 | 20.40              | 12.14                         |
| 2005                            | 3.37                              | 1.63       | 1.70    | 8.99                     | 16.53               | 13.03                 | 17.56            | 17.67                       | 6.78              | 14.28              | 16.98        | 0.43    | 3.15                     | 8.59                          | 1.80                                 | 21.25              | 14.52                         |
| 2006                            | 3.76                              | 1.72       | 1.81    | 10.20                    | 18.69               | 14.94                 | 19.50            | 19.97                       | 7.67              | 19.92              | 19.48        | 0.40    | 3.20                     | 9.77                          | 1.79                                 | 23.90              | 16.65                         |
| 2007                            | 3.70                              | 1.77       | 1.85    | 9.62                     | 20.02               | 16.47                 | 21.54            | 22.26                       | 8.16              | 20.93              | 21.36        | 0.47    | 3.39                     | 10.09                         | 1.99                                 | 25.04              | 17.55                         |
| 2008                            | 4.56                              | 2.03       | 2.17    | 10.69                    | 26.39               | 22.76                 | 25.59            | 25.47                       | 11.84             | 26.62              | 25.48        | 0.51    | 4.02                     | 11.49                         | 2.42                                 | 26.24              | 19.50                         |
| 2009                            | 5.67                              | 2.13       | 2.26    | 9.53                     | 16.59               | 12.60                 | 22.93            | 18.54                       | 7.79              | R 24.44            | R 18.56      | 0.66    | 3.08                     | R 9.47                        | 2.20                                 | 27.63              | R 16.79                       |
| 2010                            | 6.18                              | 2.18       | 2.39    | 9.24                     | 20.28               | 16.23                 | 22.72            | 21.99                       | 9.61              | R 27.80            | R 21.86      | 0.78    | 3.24                     | R 10.11                       | 2.25                                 | 29.05              | R 18.47                       |
| 2011                            | 7.32                              | 2.74       | 3.00    | 8.76                     | 26.47               | 22.39                 | R 23.91          | 28.01                       | 13.26             | R 33.78            | R 27.62      | 0.76    | 3.41                     | R 11.78                       | 2.44                                 | 30.57              | R 20.84                       |
| 2012                            | 6.96                              | 2.85       | 3.09    | 7.38                     | 27.04               | 22.99                 | 22.50            | 28.61                       | 14.67             | R 33.41            | R 28.10      | 0.79    | 3.28                     | R 11.87                       | 2.42                                 | 32.29              | R 21.46                       |
| 2013                            | 5.52                              | 2.73       | 2.89    | R 7.59                   | 26.56               | 21.97                 | 24.33            | 27.91                       | 13.60             | R 30.20            | R 27.39      | 0.80    | R 3.53                   | R 11.82                       | 2.51                                 | 32.89              | R 20.48                       |
| 2014                            | 5.10                              | 2.66       | 2.81    | 8.26                     | 26.42               | 20.70                 | 27.78            | 26.69                       | 12.74             | 26.33              | 26.48        | 0.70    | 3.83                     | 11.76                         | 2.68                                 | 32.38              | 20.01                         |
| Expenditures in Million Dollars |                                   |            |         |                          |                     |                       |                  |                             |                   |                    |              |         |                          |                               |                                      |                    |                               |
| 1970                            | 73.4                              | 294.1      | 367.5   | 620.2                    | 240.6               | 30.4                  | 44.8             | 1,378.2                     | 33.7              | 176.9              | 1,904.7      | 1.5     | 6.3                      | 2,906.9                       | -230.3                               | 1,041.7            | 3,718.3                       |
| 1975                            | 290.3                             | 634.0      | 924.3   | 1,235.6                  | 610.6               | 66.8                  | 109.6            | 2,686.4                     | 217.0             | 273.1              | 3,963.5      | 22.2    | 7.9                      | 6,178.4                       | -757.9                               | 2,139.6            | 7,560.2                       |
| 1980                            | 250.1                             | 1,047.1    | 1,297.2 | 2,596.2                  | 1,087.9             | 236.9                 | 171.1            | 5,144.7                     | 315.1             | 681.2              | 7,636.9      | 85.1    | 33.4                     | 11,787.7                      | -1,385.2                             | 3,647.5            | 14,050.0                      |
| 1985                            | 149.7                             | 1,348.3    | 1,498.1 | 3,954.1                  | 1,164.6             | 223.6                 | 465.7            | 4,466.4                     | 56.0              | 597.7              | 6,974.1      | 115.0   | 39.1                     | 12,628.3                      | -1,325.6                             | 4,993.3            | 16,296.0                      |
| 1990                            | 51.3                              | 1,233.5    | 1,284.8 | 3,569.5                  | 1,050.2             | 319.7                 | 575.0            | 4,608.3                     | 43.8              | 630.7              | 7,227.7      | 179.7   | 58.4                     | 12,358.0                      | -1,421.6                             | 5,797.5            | 16,733.8                      |
| 1995                            | 59.1                              | 1,107.3    | 1,166.3 | 3,708.4                  | 1,101.7             | 196.3                 | 479.3            | 4,875.1                     | 23.1              | 650.8              | 7,326.2      | 167.9   | 70.8                     | 12,562.5                      | -1,514.3                             | 6,636.2            | 17,684.4                      |
| 1996                            | 60.0                              | 1,086.9    | 1,146.9 | 4,194.0                  | 1,297.7             | 243.9                 | 719.7            | 5,305.6                     | 28.5              | 633.4              | 8,228.8      | 166.2   | 70.4                     | 13,852.5                      | -1,539.0                             | 6,792.0            | 19,105.5                      |
| 1997                            | 63.6                              | 1,042.6    | 1,106.3 | 4,188.9                  | 1,305.8             | 245.1                 | 582.7            | 5,328.9                     | 26.2              | 787.0              | 8,275.6      | 134.8   | 58.9                     | 13,842.0                      | -1,503.8                             | 6,805.8            | 19,144.1                      |
| 1998                            | 79.0                              | 1,060.5    | 1,139.5 | 3,560.3                  | 1,135.4             | 179.1                 | 464.6            | 4,826.3                     | 30.6              | 751.8              | 7,387.8      | 85.7    | 60.8                     | 12,288.6                      | -1,463.7                             | 7,081.7            | 17,906.6                      |
| 1999                            | 128.5                             | 1,008.9    | 1,137.5 | 3,854.1                  | 1,328.1             | 201.0                 | 527.3            | 5,464.4                     | 36.7              | 816.6              | 8,374.1      | 91.3    | 67.5                     | 13,550.9                      | -1,447.5                             | 7,362.6            | 19,466.0                      |
| 2000                            | 91.0                              | 987.1      | 1,078.1 | 4,143.6                  | 1,776.1             | 266.3                 | 734.5            | 7,310.1                     | 44.9              | 850.3              | 10,982.2     | 119.6   | 77.7                     | 16,477.3                      | -1,658.1                             | 7,400.3            | 22,219.5                      |
| 2001                            | 76.8                              | 969.3      | 1,046.1 | 4,440.4                  | 1,609.9             | 204.5                 | 962.6            | 7,019.9                     | 33.1              | 733.1              | 10,563.1     | 132.9   | 99.2                     | 16,286.9                      | -1,589.6                             | 7,092.1            | 21,789.5                      |
| 2002                            | 51.7                              | 954.3      | 1,005.9 | 4,975.9                  | 1,476.6             | 186.0                 | 916.8            | 6,739.3                     | 28.2              | 767.9              | 10,114.8     | 138.4   | 101.2                    | 16,343.5                      | -1,606.0                             | 7,377.2            | 22,114.7                      |
| 2003                            | 53.2                              | 984.6      | 1,037.8 | 5,626.4                  | 1,773.6             | 102.1                 | 1,065.3          | 7,533.2                     | 55.8              | 793.5              | 11,323.4     | 121.8   | 113.5                    | 18,279.4                      | -1,566.4                             | 7,408.8            | 24,121.8                      |
| 2004                            | 67.3                              | 1,064.1    | 1,131.4 | 6,439.2                  | 2,210.6             | 188.0                 | 1,171.8          | 8,909.0                     | 62.5              | 819.5              | 13,361.4     | 135.0   | 114.4                    | 21,278.3                      | -1,859.2                             | 7,353.4            | 26,772.5                      |
| 2005                            | 106.9                             | 1,252.6    | 1,359.5 | 7,867.7                  | 2,915.6             | 253.5                 | 1,523.0          | 10,984.2                    | 93.2              | 969.3              | 16,738.8     | 146.7   | 198.3                    | 26,405.9                      | -2,213.4                             | 7,934.7            | 32,127.2                      |
| 2006                            | 133.2                             | 1,268.9    | 1,402.1 | 7,832.7                  | 3,246.2             | 349.4                 | 1,096.7          | 12,242.4                    | 56.6              | 1,200.8            | 18,192.0     | 122.2   | 193.5                    | 27,763.6                      | -2,031.2                             | 8,724.5            | 34,456.9                      |
| 2007                            | 116.9                             | 1,362.5    | 1,479.5 | 7,384.5                  | 3,401.4             | 492.3                 | 1,307.5          | 13,317.1                    | 89.5              | 1,307.4            | 19,915.3     | 154.0   | 205.6                    | 29,243.5                      | -2,407.0                             | 9,251.2            | 36,087.7                      |
| 2008                            | 188.6                             | 1,543.4    | 1,732.0 | 8,066.1                  | 4,074.3             | 598.8                 | R 1,216.9        | 14,543.0                    | 107.3             | 1,345.5            | R 21,885.8   | 166.9   | 254.5                    | R 32,498.7                    | -2,872.4                             | 9,378.2            | R 39,004.5                    |
| 2009                            | 144.7                             | 1,515.3    | 1,660.0 | 6,736.4                  | 2,456.9             | 305.0                 | R 1,029.3        | 10,376.1                    | 29.2              | 1,216.9            | R 15,413.5   | 150.3   | 161.7                    | R 24,434.6                    | -2,306.2                             | 9,158.8            | R 31,287.2                    |
| 2010                            | 243.3                             | 1,550.0    | 1,793.3 | 6,595.8                  | 3,097.7             | 337.1                 | R 944.4          | 12,109.9                    | 35.4              | R 1,382.5          | R 17,906.9   | 242.0   | 190.5                    | R 27,006.3                    | -2,586.7                             | 10,171.9           | R 34,591.5                    |
| 2011                            | 291.7                             | 1,782.7    | 2,074.4 | 6,520.7                  | 4,081.4             | 407.9                 | R 956.2          | 15,027.2                    | 57.0              | R 1,495.1          | R 22,024.8   | 260.4   | R 214.6                  | R 31,272.9                    | -2,731.6                             | 10,846.5           | R 39,387.8                    |
| 2012                            | 246.4                             | 1,671.4    | 1,917.8 | 5,628.3                  | 4,008.1             | 473.0                 | R 798.5          | 15,219.1                    | 46.9              | R 1,467.8          | R 22,013.5   | 231.8   | R 208.6                  | R 30,148.4                    | -2,606.2                             | 11,422.9           | R 38,965.2                    |
| 2013                            | 209.9                             | 1,691.7    | 1,901.6 | R 6,047.9                | 4,384.6             | 484.5                 | R 1,145.7        | 15,407.8                    | 34.7              | R 1,624.1          | R 23,081.4   | 243.2   | R 232.7                  | R 31,743.2                    | R -2,642.4                           | 11,520.6           | R 40,621.4                    |
| 2014                            | 183.1                             | 1,552.1    | 1,735.2 | 6,993.8                  | 4,430.1             | 467.4                 | 1,273.4          | 14,778.3                    | 21.9              | 1,729.3            | 22,700.3     | 227.6   | 261.1                    | 32,198.3                      | -2,822.8                             | 11,364.6           | 40,740.1                      |

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

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

<sup>d</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

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

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

<sup>g</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of the use of wood and biomass waste beginning in 1989.

<sup>h</sup> There are no direct fuel costs for hydroelectric, geothermal, wind, photovoltaic, or solar thermal energy.

<sup>i</sup> For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

<sup>j</sup> Electricity imports are included in total primary energy and electric power sector but are not shown separately.

Where shown, R = Revised data and (s) = Value less than 0.05 million dollars.

Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the Technical Notes.

Note: Expenditure 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 ET2. Total End-Use Energy Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                              | Primary Energy |                          |                     |                       |                  |                             |                   |                    |            |                               |             | Retail Electricity | Total Energy g,h,i |
|-----------------------------------|----------------|--------------------------|---------------------|-----------------------|------------------|-----------------------------|-------------------|--------------------|------------|-------------------------------|-------------|--------------------|--------------------|
|                                   | Coal           | Natural Gas <sup>a</sup> | Petroleum           |                       |                  |                             |                   |                    |            | Biomass                       | Total g,h,i |                    |                    |
|                                   |                |                          | Distillate Fuel Oil | Jet Fuel <sup>b</sup> | LPG <sup>c</sup> | Motor Gasoline <sup>d</sup> | Residual Fuel Oil | Other <sup>e</sup> | Total      | Wood and Waste <sup>f,g</sup> |             |                    |                    |
|                                   |                |                          |                     |                       |                  |                             |                   |                    |            |                               |             |                    |                    |
| Prices in Dollars per Million Btu |                |                          |                     |                       |                  |                             |                   |                    |            |                               |             |                    |                    |
| 1970                              | 0.57           | 0.80                     | 1.10                | 0.74                  | 1.90             | 2.71                        | 0.56              | 2.10               | 2.09       | 1.01                          | 1.35        | 5.55               | 1.71               |
| 1975                              | 1.83           | 1.42                     | 2.50                | 2.08                  | 3.87             | 4.72                        | 1.95              | 3.85               | 3.93       | 1.29                          | 2.65        | 9.78               | 3.34               |
| 1980                              | 2.05           | 3.05                     | 6.78                | 6.38                  | 6.78             | 10.09                       | 3.30              | 8.74               | 8.90       | 2.16                          | 5.47        | 15.40              | 6.57               |
| 1985                              | 2.05           | 5.71                     | 7.74                | 6.09                  | 9.09             | 9.10                        | 4.39              | 10.98              | 8.78       | 2.30                          | 6.74        | 19.88              | 8.46               |
| 1990                              | 1.80           | 4.35                     | 7.44                | 5.65                  | 10.62            | 8.78                        | 3.10              | 9.88               | 8.50       | 1.84                          | 6.10        | 20.85              | 8.08               |
| 1995                              | 1.68           | 4.17                     | 6.95                | 3.93                  | 8.90             | 8.45                        | 2.60              | 9.30               | 8.02       | 1.45                          | 5.80        | 20.72              | 7.95               |
| 1996                              | 1.70           | 4.45                     | 7.79                | 4.76                  | 10.56            | 9.20                        | 2.94              | 10.12              | 8.85       | 1.38                          | 6.31        | 20.86              | 8.39               |
| 1997                              | 1.74           | 4.63                     | 7.59                | 4.56                  | 10.62            | 9.09                        | 3.08              | 8.73               | 8.61       | 1.34                          | 6.39        | 20.68              | 8.47               |
| 1998                              | 1.69           | 4.52                     | 6.58                | 3.50                  | 9.33             | 8.05                        | 2.75              | 8.79               | 7.67       | 1.38                          | 5.97        | 20.85              | 8.31               |
| 1999                              | 1.72           | 4.45                     | 7.28                | 3.89                  | 9.10             | 8.66                        | 2.81              | 8.95               | 8.22       | 1.46                          | 6.17        | 20.94              | 8.42               |
| 2000                              | 1.64           | 4.52                     | 9.95                | 6.51                  | 11.94            | 11.87                       | 3.64              | 10.46              | 11.16      | 1.68                          | 7.69        | 20.89              | 9.74               |
| 2001                              | 1.67           | 5.24                     | 9.42                | 5.80                  | 13.45            | 11.27                       | 3.93              | 10.97              | 10.88      | 2.33                          | 7.96        | 20.48              | 9.94               |
| 2002                              | 1.82           | 5.69                     | 8.82                | 5.45                  | 11.53            | 10.62                       | 3.13              | 11.68              | 10.27      | 2.34                          | 7.88        | 20.83              | 9.94               |
| 2003                              | 1.85           | 6.56                     | 10.10               | 6.68                  | 13.69            | 12.16                       | 4.38              | 11.31              | 11.72      | 2.10                          | 8.94        | 20.14              | 10.78              |
| 2004                              | 2.19           | 7.76                     | 12.25               | 8.88                  | 15.00            | 14.40                       | 5.08              | 11.29              | 13.64      | 2.35                          | 10.52       | 20.40              | 12.14              |
| 2005                              | 3.03           | 9.61                     | 16.59               | 13.03                 | 17.56            | 17.67                       | 6.73              | 14.47              | 17.08      | 3.65                          | 13.15       | 21.25              | 14.52              |
| 2006                              | 3.26           | 10.92                    | 18.74               | 14.94                 | 19.50            | 19.97                       | 7.78              | 20.31              | 19.53      | 3.74                          | 15.10       | 23.90              | 16.65              |
| 2007                              | 3.26           | 10.22                    | 20.06               | 16.47                 | 21.54            | 22.26                       | 8.43              | 21.38              | 21.45      | 3.95                          | 15.91       | 25.04              | 17.55              |
| 2008                              | 4.05           | 10.99                    | 26.41               | 22.76                 | 25.59            | 25.47                       | 12.06             | 27.31              | 25.54      | 4.78                          | 18.04       | 26.24              | 19.50              |
| 2009                              | 5.14           | 10.22                    | 16.63               | 12.60                 | 22.93            | 18.54                       | 7.87              | R 25.06            | R 18.61    | 3.71                          | R 14.44     | 27.63              | R 16.79            |
| 2010                              | 5.23           | 10.08                    | 20.31               | 16.23                 | 22.72            | 21.99                       | 9.78              | R 28.48            | R 21.91    | 3.74                          | R 16.03     | 29.05              | R 18.47            |
| 2011                              | 5.97           | 9.50                     | 26.53               | 22.39                 | R 23.91          | 28.01                       | 13.26             | R 34.43            | R 27.66    | R 3.98                        | R 18.59     | 30.57              | R 20.84            |
| 2012                              | 5.84           | R 8.73                   | 27.08               | 22.99                 | 22.50            | 28.61                       | 14.63             | R 34.10            | R 28.15    | 3.86                          | R 18.84     | 32.29              | R 21.46            |
| 2013                              | 4.83           | R 8.11                   | 26.59               | 21.97                 | 24.33            | 27.91                       | 13.56             | R 32.25            | R 27.51    | R 4.23                        | R 17.82     | 32.89              | R 20.48            |
| 2014                              | 4.57           | 8.51                     | 26.47               | 20.70                 | 27.78            | 26.69                       | 12.73             | 31.15              | 26.81      | 4.48                          | 17.43       | 32.38              | 20.01              |
| Expenditures in Million Dollars   |                |                          |                     |                       |                  |                             |                   |                    |            |                               |             |                    |                    |
| 1970                              | 194.1          | 593.0                    | 237.0               | 30.4                  | 44.8             | 1,378.2                     | 15.8              | 176.9              | 1,883.2    | 6.3                           | 2,676.6     | 1,041.7            | 3,718.3            |
| 1975                              | 467.5          | 1,174.9                  | 593.3               | 65.8                  | 109.6            | 2,686.4                     | 42.2              | 273.1              | 3,770.3    | 7.9                           | 5,420.5     | 2,139.6            | 7,560.2            |
| 1980                              | 464.9          | 2,543.0                  | 1,060.3             | 236.9                 | 171.1            | 5,144.7                     | 66.9              | 681.2              | 7,361.2    | 33.4                          | 10,402.5    | 3,647.5            | 14,050.0           |
| 1985                              | 359.8          | 3,933.4                  | 1,143.6             | 223.6                 | 465.7            | 4,466.4                     | 40.8              | 597.7              | 6,937.8    | 39.1                          | 11,302.7    | 4,993.3            | 16,296.0           |
| 1990                              | 223.9          | 3,423.9                  | 1,041.1             | 319.7                 | 575.0            | 4,608.3                     | 22.9              | 630.7              | 7,197.7    | 54.2                          | 10,936.3    | 5,797.5            | 16,733.8           |
| 1995                              | 193.7          | 3,498.7                  | 1,092.3             | 196.3                 | 479.3            | 4,875.1                     | 4.9               | 650.8              | 7,298.8    | 57.0                          | 11,048.2    | 6,636.2            | 17,684.4           |
| 1996                              | 194.1          | 3,865.2                  | 1,289.2             | 243.9                 | 719.7            | 5,305.6                     | 6.0               | 633.4              | 8,197.7    | 56.5                          | 12,313.5    | 6,792.0            | 19,105.5           |
| 1997                              | 173.5          | 3,869.6                  | 1,297.7             | 245.1                 | 582.7            | 5,328.9                     | 6.0               | 787.0              | 8,247.4    | 47.6                          | 12,338.2    | 6,805.8            | 19,144.1           |
| 1998                              | 171.7          | 3,254.9                  | 1,126.8             | 179.1                 | 464.6            | 4,826.3                     | 3.0               | 751.2              | 7,351.1    | 47.2                          | 10,824.9    | 7,081.7            | 17,906.6           |
| 1999                              | 207.3          | 3,515.9                  | 1,316.0             | 201.0                 | 527.3            | 5,464.4                     | 2.2               | 816.3              | 8,327.2    | 53.1                          | 12,103.4    | 7,362.6            | 19,466.0           |
| 2000                              | 172.4          | 3,652.4                  | 1,763.2             | 266.3                 | 734.5            | 7,310.1                     | 9.5               | 850.3              | 10,933.9   | 60.6                          | 14,819.3    | 7,400.3            | 22,219.5           |
| 2001                              | 165.8          | 3,943.5                  | 1,597.3             | 204.5                 | 962.6            | 7,019.9                     | 5.5               | 733.1              | 10,523.0   | 65.1                          | 14,697.4    | 7,092.1            | 21,789.5           |
| 2002                              | 144.3          | 4,457.1                  | 1,460.6             | 186.0                 | 916.8            | 6,739.3                     | 5.4               | 767.5              | 10,075.5   | 60.5                          | 14,737.5    | 7,377.2            | 22,114.7           |
| 2003                              | 139.7          | 5,225.5                  | 1,754.8             | 102.1                 | 1,065.3          | 7,533.2                     | 24.9              | 793.1              | 11,273.4   | 74.4                          | 16,713.0    | 7,408.8            | 24,121.8           |
| 2004                              | 180.6          | 5,850.5                  | 2,191.6             | 188.0                 | 1,171.8          | 8,909.0                     | 30.7              | 819.4              | 13,310.5   | 77.4                          | 19,419.1    | 7,353.4            | 26,772.5           |
| 2005                              | 245.8          | 7,136.4                  | 2,890.1             | 253.5                 | 1,523.0          | 10,984.2                    | 46.0              | 968.1              | 16,665.0   | 145.3                         | 24,192.5    | 7,934.7            | 32,127.2           |
| 2006                              | 261.7          | 7,176.3                  | 3,221.0             | 349.4                 | 1,096.7          | 12,242.4                    | 46.1              | 1,199.1            | 18,154.7   | 139.7                         | 25,732.4    | 8,724.5            | 34,456.9           |
| 2007                              | 260.0          | 6,564.7                  | 3,373.4             | 492.3                 | 1,307.5          | 13,317.1                    | 64.4              | 1,304.9            | 19,859.6   | 152.1                         | 26,836.5    | 9,251.2            | 36,087.7           |
| 2008                              | 354.7          | 7,248.4                  | 4,033.9             | 598.8                 | R 1,216.9        | 14,543.0                    | 93.0              | 1,343.5            | R 21,829.1 | 194.0                         | R 29,626.3  | 9,378.2            | R 39,004.5         |
| 2009                              | 274.6          | 6,355.1                  | 2,437.6             | 305.0                 | R 1,029.3        | 10,376.1                    | 23.2              | 1,214.3            | R 15,385.6 | 113.1                         | R 22,128.4  | 9,158.8            | R 31,287.2         |
| 2010                              | 375.3          | 6,033.0                  | 3,072.9             | 337.1                 | R 944.4          | 12,109.9                    | 28.8              | R 1,380.4          | R 17,873.5 | 137.8                         | R 24,419.6  | 10,171.9           | R 34,591.5         |
| 2011                              | 422.3          | 5,983.8                  | 4,040.3             | 407.9                 | R 956.2          | 15,027.2                    | 53.3              | R 1,491.3          | R 21,976.3 | R 158.9                       | R 28,541.3  | 10,846.5           | R 39,387.8         |
| 2012                              | 361.2          | 5,046.5                  | 3,978.9             | 473.0                 | R 798.5          | 15,219.1                    | 42.2              | R 1,463.7          | R 21,975.4 | R 159.1                       | R 27,542.3  | 11,422.9           | R 38,965.2         |
| 2013                              | 334.9          | R 5,540.9                | 4,355.4             | 484.5                 | R 1,145.7        | R 15,407.8                  | 32.2              | R 1,619.0          | R 23,044.5 | R 180.5                       | R 29,100.8  | 11,520.6           | R 40,621.4         |
| 2014                              | 294.1          | 6,235.6                  | 4,398.0             | 467.4                 | 1,273.4          | 14,778.3                    | 20.6              | 1,713.9            | 22,651.5   | 194.3                         | 29,375.4    | 11,364.6           | 40,740.1           |

<sup>a</sup> Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.<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>c</sup> Liquefied petroleum gases, includes ethane and olefins.<sup>d</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.<sup>e</sup> Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, and the other petroleum products as described in the Technical Notes, Section 4, "Other Petroleum Products."<sup>f</sup> Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.<sup>g</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of the use of wood and biomass waste beginning in 1989.<sup>h</sup> There are no direct fuel costs for hydroelectric, geothermal, wind, photovoltaic, or solar thermal energy.<sup>i</sup> For 1981 through 1992, includes fuel ethanol blended into gasoline that is not shown in the motor gasoline column.

Where shown, R = Revised data and (s) = Value less than 0.05 million dollars.

Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the Technical Notes.

Notes: Price estimates are weighted averages of price estimates and expenditure estimates are the sum of expenditure estimates for the residential, commercial, industrial, and transportation sectors. • Expenditure totals may not equal sum of components due to independent rounding.

Web Page: All data 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 ET3. Residential Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                              | Primary Energy    |                          |                     |          |                  |         |                   |                    | Retail Electricity | Total Energy <sup>e</sup> |
|-----------------------------------|-------------------|--------------------------|---------------------|----------|------------------|---------|-------------------|--------------------|--------------------|---------------------------|
|                                   | Coal <sup>a</sup> | Natural Gas <sup>b</sup> | Petroleum           |          |                  |         | Biomass           | Total <sup>e</sup> |                    |                           |
|                                   |                   |                          | Distillate Fuel Oil | Kerosene | LPG <sup>c</sup> | Total   | Wood <sup>d</sup> |                    |                    |                           |
|                                   |                   |                          |                     |          |                  |         |                   |                    |                    |                           |
| Prices in Dollars per Million Btu |                   |                          |                     |          |                  |         |                   |                    |                    |                           |
| 1970                              | 1.43              | 1.00                     | 1.23                | 1.56     | 2.04             | 1.36    | 0.57              | 1.10               | 6.99               | 1.73                      |
| 1975                              | 3.07              | 1.58                     | 2.51                | 3.12     | 4.29             | 2.80    | 1.12              | 1.93               | 11.32              | 3.13                      |
| 1980                              | 3.70              | 3.13                     | 7.05                | 8.43     | 8.08             | 7.27    | 2.87              | 3.72               | 16.76              | 5.53                      |
| 1985                              | 3.86              | 6.14                     | 7.66                | 8.47     | 9.63             | 8.33    | 3.24              | 6.38               | 21.62              | 8.74                      |
| 1990                              | 3.39              | 4.81                     | 7.57                | 9.53     | 11.37            | 9.43    | 3.56              | 5.42               | 22.95              | 8.48                      |
| 1995                              | 3.08              | 4.53                     | 6.58                | 8.79     | 9.54             | 8.36    | 2.90              | 4.99               | 24.44              | 8.41                      |
| 1996                              | 3.01              | 4.80                     | 7.47                | 8.91     | 11.14            | 9.89    | 3.32              | 5.49               | 24.83              | 8.75                      |
| 1997                              | 3.17              | 5.00                     | 7.21                | 9.41     | 10.97            | 9.70    | 3.31              | 5.64               | 25.12              | 9.04                      |
| 1998                              | 3.12              | 4.94                     | 6.15                | 7.70     | 9.39             | 8.45    | 2.87              | 5.42               | 25.41              | 9.52                      |
| 1999                              | 3.08              | 4.93                     | 6.76                | 7.39     | 9.23             | 8.47    | 2.94              | 5.45               | 25.58              | 9.36                      |
| 2000                              | 3.06              | 4.93                     | 9.12                | 9.38     | 12.08            | 11.22   | 4.41              | 5.83               | 24.98              | 9.46                      |
| 2001                              | 3.11              | 5.60                     | 8.90                | 9.85     | 13.72            | 12.65   | 4.22              | 6.79               | 24.20              | 10.32                     |
| 2002                              | 3.11              | 6.19                     | 8.48                | 8.69     | 12.00            | 11.36   | 3.82              | 7.01               | 24.28              | 10.55                     |
| 2003                              | 3.25              | 7.10                     | 10.11               | 10.09    | 14.08            | 13.30   | 4.59              | 8.05               | 24.49              | 11.24                     |
| 2004                              | 3.36              | 8.31                     | 11.78               | 11.20    | 15.46            | 14.72   | 5.21              | 9.23               | 24.42              | 12.32                     |
| 2005                              | 4.27              | 10.39                    | 15.71               | 15.49    | 17.70            | 17.35   | 6.91              | 11.45              | 24.63              | 14.31                     |
| 2006                              | 4.66              | 11.76                    | 17.87               | 19.69    | 19.81            | 19.44   | 7.96              | 12.63              | 28.63              | 16.46                     |
| 2007                              | 4.31              | 10.82                    | 19.92               | 22.33    | 21.73            | 21.45   | 8.73              | 12.13              | 29.93              | 16.30                     |
| 2008                              | —                 | 11.65                    | 23.62               | 23.47    | 25.75            | 25.42   | 10.83             | 13.21              | 31.49              | 17.31                     |
| 2009                              | —                 | 11.03                    | 16.14               | 23.70    | 23.51            | 22.63   | 8.07              | 12.31              | 34.01              | 17.21                     |
| 2010                              | —                 | 11.14                    | 20.47               | 25.17    | 22.93            | 22.71   | 9.51              | 12.40              | 36.51              | 18.45                     |
| 2011                              | —                 | 10.33                    | 27.33               | 28.49    | 23.81            | R 24.21 | 11.43             | R 11.75            | 38.91              | R 18.42                   |
| 2012                              | —                 | 9.78                     | 27.24               | 29.88    | 22.97            | 23.36   | 12.72             | 11.13              | 41.43              | 19.33                     |
| 2013                              | —                 | R 8.94                   | 28.23               | 30.54    | 24.76            | 25.05   | 12.56             | R 10.70            | 42.76              | R 18.10                   |
| 2014                              | —                 | 9.14                     | 27.29               | 32.87    | 28.35            | 28.27   | 12.24             | 11.13              | 42.38              | 17.94                     |
| Expenditures in Million Dollars   |                   |                          |                     |          |                  |         |                   |                    |                    |                           |
| 1970                              | 16.3              | 345.1                    | 135.5               | 4.8      | 37.9             | 178.2   | 1.7               | 541.4              | 408.1              | 949.5                     |
| 1975                              | 8.6               | 542.8                    | 284.4               | 5.3      | 92.6             | 382.4   | 3.2               | 937.0              | 806.7              | 1,743.7                   |
| 1980                              | 5.8               | 1,236.0                  | 377.7               | 4.0      | 112.6            | 494.3   | 22.0              | 1,758.2            | 1,273.3            | 3,031.5                   |
| 1985                              | 5.3               | 2,143.5                  | 276.2               | 20.4     | 176.2            | 472.8   | 25.8              | 2,647.4            | 1,645.1            | 4,292.5                   |
| 1990                              | 4.5               | 1,644.2                  | 213.4               | 11.7     | 307.3            | 532.5   | 30.9              | 2,212.1            | 1,982.5            | 4,194.6                   |
| 1995                              | 2.5               | 1,792.2                  | 146.1               | 11.6     | 316.1            | 473.7   | 13.6              | 2,282.0            | 2,387.3            | 4,669.3                   |
| 1996                              | 2.4               | 1,981.2                  | 167.8               | 11.6     | 495.5            | 674.9   | 16.1              | 2,674.7            | 2,448.3            | 5,123.0                   |
| 1997                              | 1.6               | 1,975.2                  | 153.6               | 13.6     | 460.9            | 628.0   | 10.5              | 2,615.4            | 2,461.9            | 5,077.3                   |
| 1998                              | 1.2               | 1,652.9                  | 95.0                | 11.9     | 368.7            | 475.6   | 8.1               | 2,137.8            | 2,584.2            | 4,722.0                   |
| 1999                              | 0.2               | 1,799.3                  | 117.7               | 25.4     | 410.5            | 553.6   | 8.5               | 2,361.6            | 2,676.4            | 5,038.0                   |
| 2000                              | 0.1               | 1,879.1                  | 154.0               | 18.9     | 553.4            | 726.3   | 13.8              | 2,619.3            | 2,617.7            | 5,237.0                   |
| 2001                              | 0.1               | 1,983.0                  | 137.4               | 12.4     | 785.3            | 935.1   | 17.9              | 2,936.2            | 2,667.2            | 5,603.3                   |
| 2002                              | 2.3               | 2,324.3                  | 109.2               | 7.9      | 733.6            | 850.8   | 16.5              | 3,193.9            | 2,844.6            | 6,038.5                   |
| 2003                              | 0.3               | 2,818.5                  | 134.3               | 15.1     | 853.3            | 1,002.7 | 20.9              | 3,842.4            | 2,813.1            | 6,655.4                   |
| 2004                              | 1.5               | 3,084.4                  | 139.8               | 14.1     | 816.7            | 970.5   | 24.3              | 4,080.7            | 2,758.6            | 6,839.3                   |
| 2005                              | 1.3               | 3,783.5                  | 177.8               | 19.2     | 1,048.1          | 1,245.1 | 55.4              | 5,085.3            | 3,032.8            | 8,118.1                   |
| 2006                              | 0.1               | 3,779.8                  | 155.9               | 17.1     | 720.7            | 893.7   | 56.6              | 4,730.1            | 3,381.9            | 8,112.1                   |
| 2007                              | 1.8               | 3,632.5                  | 158.0               | 12.1     | 909.7            | 1,079.8 | 68.7              | 4,782.8            | 3,611.8            | 8,394.6                   |
| 2008                              | —                 | 4,077.1                  | 164.9               | 6.5      | 1,009.2          | 1,180.6 | 95.3              | 5,353.0            | 3,685.4            | 9,038.4                   |
| 2009                              | —                 | 3,686.6                  | 84.8                | 9.6      | 895.2            | 989.5   | 47.6              | 4,723.6            | 3,812.7            | 8,536.3                   |
| 2010                              | —                 | 3,445.0                  | 79.7                | 9.1      | 805.3            | 894.1   | 49.0              | 4,388.1            | 4,320.8            | 8,708.8                   |
| 2011                              | —                 | 3,329.5                  | 105.8               | 7.5      | R 781.6          | R 894.9 | 60.2              | R 4,284.6          | 4,621.2            | R 8,905.7                 |
| 2012                              | —                 | 2,753.9                  | 72.2                | 2.6      | 632.1            | 706.9   | 62.5              | 3,523.3            | 4,871.0            | 8,394.4                   |
| 2013                              | —                 | 3,038.0                  | 91.4                | 3.9      | 927.0            | 1,022.3 | 85.2              | 4,145.5            | 4,962.4            | 9,107.8                   |
| 2014                              | —                 | 3,309.5                  | 110.4               | 6.6      | 1,057.3          | 1,174.3 | 83.1              | 4,566.8            | 4,846.5            | 9,413.3                   |

<sup>a</sup> Beginning in 2008, consumption data are no longer collected and are assumed to be zero.

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

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

<sup>d</sup> Wood and wood-derived fuels.

<sup>e</sup> There are no direct fuel costs for geothermal, photovoltaic, or solar thermal energy.

Where shown, R = Revised data, — = No consumption, and (s) = Value less than 0.05 million dollars.

Note: Expenditure 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 ET4. Commercial Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                              | Primary Energy |                          |                     |          |                   |                             |                   |                    |                        |                               | Retail Electricity | Total Energy <sup>f,g,h</sup> |
|-----------------------------------|----------------|--------------------------|---------------------|----------|-------------------|-----------------------------|-------------------|--------------------|------------------------|-------------------------------|--------------------|-------------------------------|
|                                   | Coal           | Natural Gas <sup>a</sup> | Petroleum           |          |                   |                             |                   | Biomass            | Total <sup>f,g,h</sup> |                               |                    |                               |
|                                   |                |                          | Distillate Fuel Oil | Kerosene | LPG <sup>b</sup>  | Motor Gasoline <sup>c</sup> | Residual Fuel Oil | Total <sup>d</sup> |                        | Wood and Waste <sup>e,f</sup> |                    |                               |
|                                   |                |                          |                     |          |                   |                             |                   |                    |                        |                               |                    |                               |
| Prices in Dollars per Million Btu |                |                          |                     |          |                   |                             |                   |                    |                        |                               |                    |                               |
| 1970                              | 0.53           | 0.83                     | 1.05                | 0.74     | 1.37              | 2.71                        | 0.64              | 1.22               | 0.57                   | 0.88                          | 7.12               | 2.14                          |
| 1975                              | 1.49           | 1.45                     | 2.33                | 2.44     | 2.43              | 4.72                        | 1.97              | 2.69               | 1.12                   | 1.62                          | 11.41              | 3.40                          |
| 1980                              | 1.82           | 3.13                     | 6.53                | 6.14     | 4.94              | 10.09                       | 3.97              | 6.91               | 2.87                   | 3.52                          | 17.60              | 6.37                          |
| 1985                              | 2.00           | 5.61                     | 6.30                | 8.47     | 8.13              | 9.10                        | 4.39              | 6.78               | 3.24                   | 5.65                          | 23.36              | 10.09                         |
| 1990                              | 1.77           | 4.44                     | 5.63                | 9.53     | 9.20              | 8.78                        | 3.15              | 6.74               | 2.34                   | 4.57                          | 24.21              | 10.07                         |
| 1995                              | 1.71           | 4.28                     | 4.48                | 8.79     | 7.79              | 8.45                        | 2.57              | 5.52               | 1.37                   | 4.25                          | 23.27              | 10.50                         |
| 1996                              | 1.70           | 4.59                     | 5.61                | 8.91     | 9.44              | 9.20                        | 2.95              | 6.88               | 1.49                   | 4.62                          | 23.49              | 10.75                         |
| 1997                              | 1.72           | 4.81                     | 5.16                | 9.41     | 9.97              | 9.09                        | 3.08              | 6.45               | 1.42                   | 4.82                          | 23.19              | 11.00                         |
| 1998                              | 1.70           | 4.68                     | 4.16                | 7.70     | 8.90              | 8.05                        | 2.91              | 5.80               | 1.28                   | 4.66                          | 23.10              | 11.71                         |
| 1999                              | 1.69           | 4.68                     | 4.61                | 7.39     | 8.33              | 8.66                        | 2.85              | 6.06               | 0.97                   | 4.69                          | 23.20              | 11.64                         |
| 2000                              | 1.61           | 4.63                     | 7.42                | 9.38     | 11.07             | 11.87                       | 3.70              | 8.76               | 1.41                   | 4.86                          | 23.36              | 11.75                         |
| 2001                              | 1.62           | 5.28                     | 7.06                | 9.85     | 12.50             | 11.27                       | 4.16              | 9.36               | 3.79                   | 5.61                          | 22.30              | 12.02                         |
| 2002                              | 1.75           | 5.85                     | 6.33                | 8.69     | 9.24              | 10.62                       | 3.29              | 7.93               | 1.87                   | 5.79                          | 23.03              | 12.39                         |
| 2003                              | 1.81           | 6.73                     | 7.53                | 10.09    | 11.51             | 12.16                       | 4.39              | 9.40               | 2.55                   | 6.82                          | 22.12              | 12.39                         |
| 2004                              | 2.11           | 7.78                     | 9.57                | 11.20    | 13.52             | 14.40                       | 5.18              | 11.57              | 2.38                   | 7.81                          | 22.19              | 13.50                         |
| 2005                              | 2.80           | 9.24                     | 14.44               | 15.49    | 16.34             | 17.67                       | 6.70              | 15.28              | 3.58                   | 9.38                          | 22.98              | 14.90                         |
| 2006                              | 2.87           | 10.56                    | 16.66               | 19.69    | 18.14             | 19.97                       | 7.89              | 17.25              | 3.30                   | 10.81                         | 24.94              | 16.97                         |
| 2007                              | 2.96           | 9.80                     | 18.37               | 22.33    | 19.59             | 22.26                       | —                 | 18.95              | 3.78                   | 10.02                         | 25.72              | 16.65                         |
| 2008                              | 4.61           | 10.41                    | 24.66               | 23.47    | 23.33             | 25.47                       | 12.41             | 23.81              | 4.38                   | 10.83                         | 26.89              | 17.30                         |
| 2009                              | 5.95           | 9.18                     | 14.67               | 23.70    | 18.66             | 18.54                       | 7.98              | 15.82              | 2.66                   | 9.31                          | 27.09              | 16.52                         |
| 2010                              | 5.07           | 8.81                     | 18.48               | 25.17    | 19.60             | 21.99                       | 11.66             | 18.65              | 2.94                   | 9.11                          | 28.76              | 17.50                         |
| 2011                              | 5.04           | 9.02                     | 24.63               | 28.49    | 21.75             | 28.01                       | 15.63             | <sup>R</sup> 23.59 | 3.24                   | <sup>R</sup> 9.61             | 30.28              | 18.19                         |
| 2012                              | 5.37           | 8.21                     | 24.48               | 29.88    | 19.42             | 28.61                       | 16.91             | 23.01              | 2.73                   | 8.90                          | 32.05              | 19.13                         |
| 2013                              | 5.14           | <sup>R</sup> 7.69        | 24.63               | 30.54    | 20.70             | 27.91                       | 16.68             | 23.55              | <sup>R</sup> 2.95      | <sup>R</sup> 8.51             | 32.43              | <sup>R</sup> 18.06            |
| 2014                              | 5.10           | 8.11                     | 23.24               | 32.87    | 23.26             | 26.69                       | 15.95             | 25.39              | 3.04                   | 10.01                         | 31.86              | 17.93                         |
| Expenditures in Million Dollars   |                |                          |                     |          |                   |                             |                   |                    |                        |                               |                    |                               |
| 1970                              | 4.8            | 111.4                    | 21.4                | 1.7      | 2.3               | 11.4                        | 2.2               | 39.1               | (s)                    | 155.3                         | 316.4              | 471.7                         |
| 1975                              | 9.8            | 269.8                    | 48.7                | 3.1      | 4.8               | 23.7                        | 4.8               | 85.1               | 0.1                    | 364.7                         | 568.1              | 932.8                         |
| 1980                              | 10.8           | 606.7                    | 118.8               | 0.5      | 6.3               | 43.6                        | 5.6               | 174.9              | 0.5                    | 792.9                         | 1,006.9            | 1,799.7                       |
| 1985                              | 9.6            | 905.1                    | 89.9                | 0.6      | 13.6              | 33.4                        | 7.6               | 145.1              | 0.6                    | 1,060.7                       | 1,468.2            | 2,528.8                       |
| 1990                              | 9.4            | 738.5                    | 65.9                | 1.0      | 22.8              | 35.5                        | 1.4               | 126.6              | 4.4                    | 879.3                         | 1,815.9            | 2,695.2                       |
| 1995                              | 9.3            | 864.6                    | 42.7                | 5.1      | 23.7              | 3.4                         | 0.1               | 75.0               | 4.4                    | 953.3                         | 2,552.9            | 3,506.2                       |
| 1996                              | 10.0           | 955.6                    | 57.7                | 7.6      | 38.5              | 3.7                         | 0.1               | 107.5              | 5.2                    | 1,078.4                       | 2,636.1            | 3,714.5                       |
| 1997                              | 7.1            | 961.3                    | 57.6                | 3.0      | 38.4              | 3.6                         | 1.1               | 103.6              | 4.6                    | 1,076.7                       | 2,628.9            | 3,705.6                       |
| 1998                              | 5.4            | 800.5                    | 36.5                | 2.9      | 32.1              | 8.7                         | (s)               | 80.2               | 3.8                    | 890.0                         | 2,735.5            | 3,625.4                       |
| 1999                              | 0.7            | 873.4                    | 37.6                | 1.6      | 34.0              | 7.7                         | (s)               | 80.9               | 3.9                    | 958.9                         | 2,853.4            | 3,812.3                       |
| 2000                              | 0.5            | 896.6                    | 68.1                | 1.7      | 46.5              | 9.8                         | 0.1               | 126.3              | 4.7                    | 1,028.1                       | 2,932.2            | 3,960.2                       |
| 2001                              | 0.3            | 945.1                    | 62.7                | 1.9      | 65.6              | 25.4                        | 0.4               | 156.1              | 3.3                    | 1,104.9                       | 2,733.4            | 3,838.3                       |
| 2002                              | 9.7            | 1,050.8                  | 35.6                | 1.4      | 51.8              | 13.7                        | 1.3               | 103.8              | 7.6                    | 1,171.8                       | 2,894.0            | 4,065.8                       |
| 2003                              | 1.2            | 1,289.9                  | 51.9                | 1.1      | 69.9              | 12.8                        | 2.5               | 138.1              | 9.8                    | 1,439.0                       | 2,671.5            | 4,110.5                       |
| 2004                              | 8.3            | 1,398.0                  | 59.1                | 1.4      | 80.2              | 14.3                        | 1.6               | 156.7              | 10.6                   | 1,573.6                       | 2,925.2            | 4,498.8                       |
| 2005                              | 9.6            | 1,638.0                  | 106.4               | 2.5      | 58.5              | 19.1                        | 0.2               | 186.6              | 16.0                   | 1,850.2                       | 3,104.6            | 4,954.8                       |
| 2006                              | 0.5            | 1,654.4                  | 129.2               | 2.9      | 63.7              | 9.4                         | 0.1               | 205.3              | 15.7                   | 1,875.9                       | 3,344.5            | 5,220.4                       |
| 2007                              | 11.2           | 1,640.7                  | 119.9               | 1.0      | 68.4              | 9.4                         | —                 | 198.7              | 19.0                   | 1,869.7                       | 3,513.9            | 5,383.6                       |
| 2008                              | 22.4           | 1,834.7                  | 150.3               | 1.0      | 89.3              | 10.9                        | 4.4               | 255.9              | 23.6                   | 2,136.6                       | 3,575.2            | 5,711.8                       |
| 2009                              | 38.0           | 1,535.3                  | 115.2               | 1.1      | 49.4              | 12.0                        | 0.6               | 178.2              | 12.3                   | 1,763.9                       | 3,500.7            | 5,264.6                       |
| 2010                              | 23.3           | 1,363.5                  | 120.6               | 1.9      | 51.8              | 9.2                         | 5.6               | 189.1              | 15.0                   | 1,590.9                       | 3,740.7            | 5,331.6                       |
| 2011                              | 20.5           | 1,495.0                  | 176.4               | 1.5      | <sup>R</sup> 53.7 | 11.3                        | 9.7               | <sup>R</sup> 252.5 | 16.6                   | <sup>R</sup> 1,784.6          | 3,989.0            | <sup>R</sup> 5,773.6          |
| 2012                              | 11.4           | 1,207.5                  | 165.7               | 0.6      | 56.8              | 11.4                        | 5.0               | 239.4              | 17.2                   | 1,475.5                       | 4,211.4            | 5,686.8                       |
| 2013                              | 8.9            | 1,341.3                  | 190.2               | 1.2      | 75.7              | <sup>R</sup> 11.4           | 0.1               | 278.6              | <sup>R</sup> 16.0      | <sup>R</sup> 1,644.8          | 4,170.8            | <sup>R</sup> 5,815.5          |
| 2014                              | 8.1            | 1,543.5                  | 155.8               | 1.8      | 78.5              | 439.8                       | 0.4               | 676.3              | 17.3                   | 2,245.2                       | 4,060.0            | 6,305.2                       |

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

<sup>b</sup> Liquefied petroleum gases, includes ethane and olefins.

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

<sup>d</sup> Includes small amounts of petroleum coke not shown separately.

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

<sup>f</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of the use of wood and biomass waste beginning in 1989.

<sup>g</sup> There are no direct fuel costs for hydroelectric, geothermal, wind, photovoltaic, or solar thermal energy.

<sup>h</sup> For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor

gasoline column.

Where shown, <sup>R</sup> = Revised data and (s) = Value less than 0.05 million dollars.

Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the Technical Notes.

Notes: Expenditure totals may not equal sum of components due to independent rounding. • Commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

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 ET5. Industrial Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                              | Primary Energy |            |       |                          |                     |                    |                             |                   |                      |                      |                   |                               | Retail Electricity | Total Energy f,g,h   |
|-----------------------------------|----------------|------------|-------|--------------------------|---------------------|--------------------|-----------------------------|-------------------|----------------------|----------------------|-------------------|-------------------------------|--------------------|----------------------|
|                                   | Coal           |            |       | Natural Gas <sup>a</sup> | Petroleum           |                    |                             |                   |                      | Biomass              | Total f,g,h       |                               |                    |                      |
|                                   | Coking Coal    | Steam Coal | Total |                          | Distillate Fuel Oil | LPG <sup>b</sup>   | Motor Gasoline <sup>c</sup> | Residual Fuel Oil | Other <sup>d</sup>   | Total                |                   | Wood and Waste <sup>e,f</sup> |                    |                      |
|                                   |                |            |       |                          |                     |                    |                             |                   |                      |                      |                   |                               |                    |                      |
| Prices in Dollars per Million Btu |                |            |       |                          |                     |                    |                             |                   |                      |                      |                   |                               |                    |                      |
| 1970                              | 0.55           | 0.53       | 0.54  | 0.53                     | 0.68                | 1.41               | 2.71                        | 0.54              | 1.81                 | 1.35                 | 1.44              | 0.71                          | 3.74               | 1.02                 |
| 1975                              | 2.07           | 1.49       | 1.82  | 1.22                     | 2.27                | 2.55               | 4.72                        | 1.98              | 3.41                 | 2.90                 | 1.44              | 1.78                          | 7.83               | 2.53                 |
| 1980                              | 2.27           | 1.82       | 2.04  | 2.87                     | 5.56                | 5.22               | 10.09                       | 3.23              | 7.97                 | 6.66                 | 1.43              | 3.35                          | 13.18              | 4.80                 |
| 1985                              | 2.08           | 2.00       | 2.03  | 4.95                     | 6.38                | 8.79               | 9.10                        | 4.39              | 9.78                 | 8.36                 | 1.43              | 4.64                          | 16.75              | 6.98                 |
| 1990                              | 1.80           | 1.77       | 1.78  | 3.72                     | 5.54                | 9.90               | 8.78                        | 3.15              | 8.02                 | 7.66                 | 1.00              | 4.02                          | 17.15              | 6.40                 |
| 1995                              | 1.57           | 1.71       | 1.67  | 3.48                     | 4.67                | 7.67               | 8.45                        | 2.57              | 7.47                 | 6.96                 | 1.24              | 3.67                          | 15.02              | 5.81                 |
| 1996                              | 1.68           | 1.70       | 1.69  | 3.74                     | 5.68                | 9.35               | 9.20                        | 2.95              | 8.27                 | 7.89                 | 1.08              | 3.97                          | 14.88              | 6.04                 |
| 1997                              | 1.75           | 1.72       | 1.73  | 3.86                     | 5.44                | 9.11               | 9.09                        | 3.08              | 7.21                 | 7.06                 | 1.11              | 4.06                          | 14.56              | 6.11                 |
| 1998                              | 1.67           | 1.70       | 1.68  | 3.73                     | 4.33                | 7.96               | 8.05                        | 2.91              | 7.21                 | 6.61                 | 1.24              | 3.82                          | 14.74              | 6.12                 |
| 1999                              | 1.74           | 1.69       | 1.72  | 3.54                     | 5.76                | 8.16               | 8.66                        | 2.85              | 7.28                 | 7.01                 | 1.38              | 3.80                          | 14.79              | 5.96                 |
| 2000                              | 1.66           | 1.61       | 1.64  | 3.76                     | 9.30                | 11.36              | 11.87                       | 3.70              | 8.75                 | 9.17                 | 1.42              | 4.40                          | 14.93              | 6.57                 |
| 2001                              | 1.73           | 1.62       | 1.67  | 4.64                     | 7.34                | 12.05              | 11.27                       | 4.16              | 8.94                 | 9.07                 | 1.92              | 4.79                          | 14.90              | 6.88                 |
| 2002                              | 1.93           | 1.75       | 1.82  | 4.73                     | 7.08                | 10.04              | 10.62                       | 3.29              | 9.45                 | 9.18                 | 2.09              | 5.12                          | 14.72              | 7.16                 |
| 2003                              | 1.93           | 1.81       | 1.85  | 5.36                     | 8.47                | 12.42              | 12.16                       | 4.39              | 9.05                 | 9.42                 | 1.62              | 5.50                          | 14.55              | 7.69                 |
| 2004                              | 2.31           | 2.11       | 2.18  | 6.71                     | 10.99               | 13.83              | 14.40                       | 5.18              | 8.89                 | 10.44                | 1.79              | 6.64                          | 14.43              | 8.31                 |
| 2005                              | 3.37           | 2.80       | 3.03  | 8.50                     | 15.08               | 17.08              | 17.67                       | 6.70              | 11.56                | 13.59                | 2.71              | 8.53                          | 15.61              | 10.04                |
| 2006                              | 3.76           | 2.87       | 3.26  | 9.72                     | 17.22               | 18.90              | 19.97                       | 7.89              | 16.69                | 17.14                | 2.65              | 9.84                          | 17.72              | 11.62                |
| 2007                              | 3.70           | 2.96       | 3.27  | 9.26                     | 18.71               | 21.22              | 22.26                       | 8.59              | 17.43                | 18.22                | 2.52              | 10.10                         | 18.96              | 12.29                |
| 2008                              | 4.56           | 3.47       | 4.02  | 10.02                    | 25.37               | 25.30              | 25.47                       | 12.41             | 22.36                | 22.86                | 2.84              | <sup>R</sup> 11.07            | 19.71              | 13.23                |
| 2009                              | 5.67           | 4.27       | 5.03  | 9.43                     | 15.01               | 19.52              | 18.54                       | 7.98              | <sup>R</sup> 20.11   | <sup>R</sup> 18.31   | 2.66              | <sup>R</sup> 10.56            | 20.47              | <sup>R</sup> 13.12   |
| 2010                              | 6.18           | 3.92       | 5.24  | 9.10                     | 18.87               | 22.15              | 21.99                       | 11.66             | <sup>R</sup> 23.00   | <sup>R</sup> 21.60   | 2.78              | <sup>R</sup> 10.57            | 20.75              | <sup>R</sup> 13.16   |
| 2011                              | 7.32           | 4.10       | 6.03  | 8.16                     | 25.47               | <sup>R</sup> 24.67 | 28.01                       | 15.63             | <sup>R</sup> 27.61   | <sup>R</sup> 26.64   | 2.78              | <sup>R</sup> 11.12            | 21.46              | <sup>R</sup> 13.76   |
| 2012                              | 6.96           | 4.24       | 5.85  | 7.26                     | 25.67               | 19.67              | 28.61                       | 16.91             | <sup>R</sup> 27.32   | <sup>R</sup> 26.40   | 2.64              | <sup>R</sup> 10.55            | 22.34              | <sup>R</sup> 13.59   |
| 2013                              | 5.52           | 3.93       | 4.82  | <sup>R</sup> 6.86        | 25.05               | 20.92              | 27.91                       | 16.68             | <sup>R</sup> 26.34   | <sup>R</sup> 25.75   | <sup>R</sup> 2.60 | <sup>R</sup> 10.16            | 22.61              | <sup>R</sup> 13.11   |
| 2014                              | 5.10           | 3.83       | 4.56  | 7.68                     | 23.38               | 23.84              | 26.69                       | 15.95             | 25.39                | 24.85                | 3.04              | 10.39                         | 22.50              | 13.29                |
| Expenditures in Million Dollars   |                |            |       |                          |                     |                    |                             |                   |                      |                      |                   |                               |                    |                      |
| 1970                              | 73.4           | 99.3       | 172.7 | 136.5                    | 33.3                | 4.3                | 39.2                        | 12.0              | 121.7                | 210.6                | 4.5               | 524.3                         | 317.2              | 841.5                |
| 1975                              | 290.3          | 158.8      | 449.1 | 362.3                    | 115.9               | 11.2               | 46.9                        | 32.6              | 198.7                | 405.3                | 4.6               | 1,221.3                       | 764.8              | 1,986.1              |
| 1980                              | 250.1          | 198.2      | 448.3 | 700.3                    | 155.7               | 49.7               | 51.3                        | 56.3              | 525.9                | 838.9                | 10.8              | 1,998.3                       | 1,367.4            | 3,365.7              |
| 1985                              | 149.7          | 195.2      | 344.9 | 884.9                    | 163.4               | 264.8              | 57.0                        | 30.5              | 418.4                | 934.1                | 12.7              | 2,177.0                       | 1,880.0            | 4,057.0              |
| 1990                              | 51.3           | 158.6      | 209.9 | 1,041.2                  | 127.7               | 232.9              | 45.0                        | 20.1              | 418.8                | 844.4                | 18.8              | 2,114.8                       | 1,999.1            | 4,113.9              |
| 1995                              | 59.1           | 122.8      | 181.9 | 841.7                    | 93.6                | 128.3              | 57.8                        | 3.3               | 434.0                | 717.0                | 39.1              | 1,779.7                       | 1,695.7            | 3,475.3              |
| 1996                              | 60.0           | 121.6      | 181.7 | 928.1                    | 128.2               | 175.5              | 68.1                        | 3.6               | 420.5                | 795.8                | 35.2              | 1,940.7                       | 1,707.2            | 3,648.0              |
| 1997                              | 63.6           | 101.1      | 164.8 | 933.0                    | 125.9               | 74.6               | 60.3                        | 3.9               | 565.4                | 830.1                | 32.5              | 1,960.4                       | 1,714.8            | 3,675.2              |
| 1998                              | 79.0           | 86.0       | 165.0 | 801.0                    | 103.7               | 30.4               | 46.1                        | 1.7               | 528.3                | 710.1                | 35.2              | 1,711.4                       | 1,761.8            | 3,473.2              |
| 1999                              | 128.5          | 77.8       | 206.4 | 842.4                    | 164.4               | 65.4               | 45.9                        | 1.6               | 557.9                | 835.3                | 40.7              | 1,924.7                       | 1,832.6            | 3,757.3              |
| 2000                              | 91.0           | 80.8       | 171.8 | 875.1                    | 219.3               | 118.9              | 65.6                        | 8.4               | 601.5                | 1,013.8              | 42.1              | 2,102.7                       | 1,850.1            | 3,952.8              |
| 2001                              | 76.8           | 88.6       | 165.4 | 1,013.0                  | 149.1               | 102.2              | 107.8                       | 3.6               | 504.3                | 867.0                | 43.8              | 2,089.2                       | 1,691.2            | 3,780.4              |
| 2002                              | 51.7           | 80.6       | 132.3 | 1,080.0                  | 113.9               | 121.0              | 106.9                       | 3.3               | 523.2                | 868.3                | 36.5              | 2,117.0                       | 1,638.3            | 3,755.3              |
| 2003                              | 53.2           | 84.9       | 138.1 | 1,114.2                  | 159.1               | 128.4              | 127.7                       | 17.0              | 544.8                | 977.0                | 43.7              | 2,273.1                       | 1,923.9            | 4,197.0              |
| 2004                              | 67.3           | 103.5      | 170.8 | 1,364.4                  | 233.3               | 246.6              | 172.9                       | 21.6              | 559.1                | 1,233.4              | 42.5              | 2,811.1                       | 1,669.4            | 4,480.5              |
| 2005                              | 106.9          | 128.0      | 234.9 | 1,713.7                  | 304.6               | 375.8              | 205.5                       | 37.3              | 660.8                | 1,584.1              | 73.9              | 3,606.6                       | 1,796.7            | 5,403.3              |
| 2006                              | 133.2          | 127.9      | 261.1 | 1,741.0                  | 301.6               | 292.4              | 246.5                       | 35.1              | 834.4                | 1,710.1              | 67.4              | 3,779.5                       | 1,997.7            | 5,777.2              |
| 2007                              | 116.9          | 130.0      | 246.9 | 1,291.0                  | 341.0               | 303.0              | 254.5                       | 50.1              | 908.6                | 1,857.3              | 64.5              | 3,459.6                       | 2,125.0            | 5,584.7              |
| 2008                              | 188.6          | 143.7      | 332.3 | 1,335.3                  | 500.4               | <sup>R</sup> 86.7  | 245.8                       | 74.3              | 919.8                | <sup>R</sup> 1,827.0 | 75.1              | <sup>R</sup> 3,569.7          | 2,117.1            | <sup>R</sup> 5,686.8 |
| 2009                              | 144.7          | 92.0       | 236.6 | 1,132.2                  | 267.9               | <sup>R</sup> 64.3  | 136.4                       | 16.2              | 825.9                | <sup>R</sup> 1,310.8 | 53.2              | <sup>R</sup> 2,732.8          | 1,844.8            | <sup>R</sup> 4,577.6 |
| 2010                              | 243.3          | 108.8      | 352.0 | 1,223.1                  | 351.3               | <sup>R</sup> 67.3  | 140.0                       | 10.8              | <sup>R</sup> 921.7   | <sup>R</sup> 1,491.1 | 73.9              | <sup>R</sup> 3,140.1          | 2,109.9            | <sup>R</sup> 5,250.1 |
| 2011                              | 291.7          | 110.1      | 401.8 | 1,154.9                  | 472.1               | <sup>R</sup> 81.4  | 171.1                       | 20.9              | <sup>R</sup> 979.1   | <sup>R</sup> 1,724.6 | <sup>R</sup> 82.1 | <sup>R</sup> 3,363.4          | 2,235.9            | <sup>R</sup> 5,599.4 |
| 2012                              | 246.4          | 103.3      | 349.8 | 1,081.0                  | 418.1               | <sup>R</sup> 73.3  | 190.6                       | 19.8              | <sup>R</sup> 980.2   | <sup>R</sup> 1,682.0 | 79.5              | <sup>R</sup> 3,192.2          | 2,340.0            | <sup>R</sup> 5,532.2 |
| 2013                              | 209.9          | 116.1      | 326.0 | <sup>R</sup> 1,159.0     | 480.2               | <sup>R</sup> 82.7  | <sup>R</sup> 195.6          | 14.3              | <sup>R</sup> 1,126.7 | <sup>R</sup> 1,899.5 | <sup>R</sup> 79.3 | <sup>R</sup> 3,463.7          | 2,386.9            | <sup>R</sup> 5,850.6 |
| 2014                              | 183.1          | 102.8      | 286.0 | 1,379.3                  | 428.2               | 88.2               | 131.8                       | 7.2               | 1,202.2              | 1,857.7              | 93.9              | 3,616.9                       | 2,457.7            | 6,074.6              |

<sup>a</sup> Natural gas as it is consumed; includes supplemental gaseous fuels that are commingled with natural gas.<sup>b</sup> Liquefied petroleum gases, includes ethane and olefins.<sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.<sup>d</sup> Includes asphalt and road oil, kerosene, lubricants, and the other petroleum products as described in the Technical Notes, Section 4, "Other Petroleum Products."<sup>e</sup> Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.<sup>f</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of the use of wood and biomass waste beginning in 1989.<sup>g</sup> There are no direct fuel costs for hydroelectric, geothermal, wind, photovoltaic, or solar thermal energy.<sup>h</sup> For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

Where shown, R = Revised data and (s) = Value less than 0.05 million dollars.

Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the Technical Notes.

Notes: Expenditure totals may not equal sum of components due to independent rounding. • Industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

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 ET6. Transportation Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                              | Primary Energy |                   |                   |                     |                       |                   |            |                             |                   |                       |                       | Retail Electricity | Total Energy <sup>d</sup> |
|-----------------------------------|----------------|-------------------|-------------------|---------------------|-----------------------|-------------------|------------|-----------------------------|-------------------|-----------------------|-----------------------|--------------------|---------------------------|
|                                   | Coal           | Natural Gas       | Petroleum         |                     |                       |                   |            |                             |                   | Total <sup>d</sup>    |                       |                    |                           |
|                                   |                |                   | Aviation Gasoline | Distillate Fuel Oil | Jet Fuel <sup>a</sup> | LPG <sup>b</sup>  | Lubricants | Motor Gasoline <sup>c</sup> | Residual Fuel Oil |                       | Total                 |                    |                           |
|                                   |                |                   |                   |                     |                       |                   |            |                             |                   |                       |                       |                    |                           |
| Prices in Dollars per Million Btu |                |                   |                   |                     |                       |                   |            |                             |                   |                       |                       |                    |                           |
| 1970                              | 0.53           | —                 | 2.17              | 1.27                | 0.74                  | 1.37              | 5.08       | 2.71                        | 0.57              | 2.50                  | 2.50                  | —                  | 2.50                      |
| 1975                              | 1.49           | —                 | 3.45              | 2.77                | 2.08                  | 2.43              | 7.48       | 4.72                        | 1.76              | 4.46                  | 4.46                  | —                  | 4.46                      |
| 1980                              | —              | —                 | 9.02              | 7.19                | 6.38                  | 4.94              | 14.36      | 10.09                       | 3.49              | 9.63                  | 9.63                  | —                  | 9.63                      |
| 1985                              | —              | —                 | 9.99              | 8.55                | 6.09                  | 9.90              | 18.18      | 9.10                        | 4.38              | 8.97                  | 8.97                  | —                  | 8.97                      |
| 1990                              | —              | 1.94              | 9.32              | 8.24                | 5.65                  | 11.02             | 20.61      | 8.78                        | 2.42              | 8.61                  | 8.61                  | —                  | 8.61                      |
| 1995                              | —              | 2.96              | 8.36              | 7.68                | 3.93                  | 12.15             | 21.75      | 8.45                        | 2.66              | 8.19                  | 8.19                  | 21.13              | 8.19                      |
| 1996                              | —              | 3.27              | 9.29              | 8.49                | 4.76                  | 11.91             | 21.63      | 9.20                        | 2.91              | 8.93                  | 8.93                  | 20.84              | 8.93                      |
| 1997                              | —              | 3.85              | 9.39              | 8.33                | 4.56                  | 11.32             | 21.82      | 9.09                        | 3.09              | 8.81                  | 8.80                  | 18.14              | 8.81                      |
| 1998                              | —              | 3.35              | 8.11              | 7.25                | 3.50                  | 10.83             | 21.44      | 8.05                        | 2.58              | 7.80                  | 7.79                  | 18.95              | 7.80                      |
| 1999                              | —              | 3.58              | 8.81              | 7.87                | 3.89                  | 12.82             | 23.04      | 8.66                        | 2.73              | 8.41                  | 8.41                  | 17.05              | 8.41                      |
| 2000                              | —              | 6.82              | 10.87             | 10.36               | 6.51                  | 15.38             | 23.20      | 11.87                       | 3.23              | 11.48                 | 11.48                 | 19.41              | 11.48                     |
| 2001                              | —              | 9.07              | 11.01             | 9.99                | 5.80                  | 16.47             | 24.51      | 11.27                       | 3.45              | 10.96                 | 10.96                 | 18.53              | 10.96                     |
| 2002                              | —              | 7.91              | 10.72             | 9.17                | 5.45                  | 14.76             | 26.70      | 10.62                       | 2.36              | 10.34                 | 10.33                 | 19.13              | 10.33                     |
| 2003                              | —              | 9.01              | 12.42             | 10.46               | 6.68                  | 16.95             | 28.94      | 12.16                       | 4.33              | 11.92                 | 11.92                 | 24.06              | 11.92                     |
| 2004                              | —              | 10.19             | 15.13             | 12.60               | 8.88                  | 18.57             | 30.11      | 14.40                       | 4.80              | 14.08                 | 14.07                 | 23.12              | 14.07                     |
| 2005                              | —              | 11.48             | 18.56             | 17.01               | 13.03                 | 20.81             | 35.22      | 17.67                       | 6.89              | 17.61                 | 17.61                 | 38.32              | 17.61                     |
| 2006                              | —              | 10.80             | 22.31             | 19.10               | 14.94                 | 22.46             | 43.88      | 19.97                       | 7.46              | 19.88                 | 19.88                 | 29.48              | 19.88                     |
| 2007                              | —              | 5.96              | 23.70             | 20.33               | 16.47                 | 24.66             | 47.16      | 22.26                       | 7.90              | 21.92                 | 21.92                 | 28.60              | 21.92                     |
| 2008                              | —              | 7.75              | 27.23             | 26.83               | 22.76                 | 28.61             | 55.12      | 25.47                       | 10.46             | 25.88                 | 25.87                 | 34.66              | 25.87                     |
| 2009                              | —              | 3.99              | 20.32             | 17.03               | 12.60                 | 23.43             | 56.07      | 18.54                       | 7.59              | 18.44                 | 18.43                 | 31.62              | 18.43                     |
| 2010                              | —              | 5.11              | 25.19             | 20.62               | 16.23                 | 25.75             | 58.80      | 21.99                       | 8.07              | 21.95                 | 21.94                 | 31.20              | 21.94                     |
| 2011                              | —              | 13.06             | 31.64             | 26.77               | 22.39                 | 28.51             | 69.54      | 28.01                       | 11.02             | 28.01                 | 28.00                 | 25.00              | 28.00                     |
| 2012                              | —              | 12.09             | 33.04             | 27.41               | 22.99                 | 27.56             | 72.11      | 28.61                       | 12.27             | 28.61                 | 28.60                 | 23.69              | 28.60                     |
| 2013                              | —              | <sup>R</sup> 7.69 | 32.71             | 26.89               | 21.97                 | 29.59             | 69.42      | 27.91                       | 11.78             | 27.90                 | 27.89                 | 25.69              | 27.89                     |
| 2014                              | —              | 8.11              | 33.16             | 27.01               | 20.70                 | 33.67             | 69.44      | 26.69                       | 11.38             | 26.98                 | 26.97                 | 27.62              | 26.97                     |
| Expenditures in Million Dollars   |                |                   |                   |                     |                       |                   |            |                             |                   |                       |                       |                    |                           |
| 1970                              | 0.3            | —                 | 7.9               | 46.9                | 30.4                  | 0.3               | 40.8       | 1,327.5                     | 1.5               | 1,455.3               | 1,455.6               | —                  | 1,455.6                   |
| 1975                              | 0.1            | —                 | 6.0               | 144.2               | 65.8                  | 0.9               | 60.0       | 2,615.8                     | 4.7               | 2,897.4               | 2,897.5               | —                  | 2,897.5                   |
| 1980                              | —              | —                 | 22.2              | 408.1               | 236.9                 | 2.4               | 128.6      | 5,049.8                     | 5.1               | 5,853.1               | 5,853.1               | —                  | 5,853.1                   |
| 1985                              | —              | —                 | 10.1              | 614.1               | 223.6                 | 11.0              | 148.2      | 4,376.0                     | 2.7               | 5,385.8               | 5,417.7               | —                  | 5,417.7                   |
| 1990                              | —              | (s)               | 10.1              | 634.1               | 319.7                 | 12.0              | 189.1      | 4,527.8                     | 1.4               | 5,694.1               | 5,730.2               | —                  | 5,730.2                   |
| 1995                              | —              | 0.2               | 9.8               | 809.9               | 196.3                 | 11.2              | 190.4      | 4,813.9                     | 1.6               | 6,033.0               | 6,033.3               | 0.3                | 6,033.6                   |
| 1996                              | —              | 0.3               | 10.1              | 935.5               | 243.9                 | 10.2              | 183.7      | 5,233.8                     | 2.2               | 6,619.4               | 6,619.7               | 0.4                | 6,620.1                   |
| 1997                              | —              | 0.2               | 9.3               | 960.6               | 245.1                 | 8.8               | 195.8      | 5,265.0                     | 1.0               | 6,685.6               | 6,685.8               | 0.3                | 6,686.0                   |
| 1998                              | —              | 0.6               | 6.8               | 891.7               | 179.1                 | 33.4              | 201.4      | 4,771.5                     | 1.3               | 6,085.2               | 6,085.8               | 0.3                | 6,086.1                   |
| 1999                              | —              | 0.8               | 12.7              | 996.3               | 201.0                 | 17.3              | 218.7      | 5,410.7                     | 0.6               | 6,857.5               | 6,858.2               | 0.2                | 6,858.4                   |
| 2000                              | —              | 1.6               | 11.2              | 1,321.7             | 266.3                 | 15.7              | 216.9      | 7,234.7                     | 1.0               | 9,067.5               | 9,069.1               | 0.3                | 9,069.4                   |
| 2001                              | —              | 2.4               | 4.4               | 1,248.1             | 204.5                 | 9.5               | 209.9      | 6,886.7                     | 1.5               | 8,564.7               | 8,567.1               | 0.3                | 8,567.5                   |
| 2002                              | —              | 2.1               | 9.0               | 1,201.9             | 186.0                 | 10.4              | 226.0      | 6,618.8                     | 0.7               | 8,252.7               | 8,254.8               | 0.3                | 8,255.1                   |
| 2003                              | —              | 2.9               | 5.6               | 1,409.6             | 102.1                 | 13.8              | 226.5      | 7,392.6                     | 5.4               | 9,155.6               | 9,158.6               | 0.3                | 9,158.8                   |
| 2004                              | —              | 3.7               | 6.1               | 1,759.4             | 188.0                 | 28.3              | 238.8      | 8,721.8                     | 7.6               | 10,949.9              | 10,953.7              | 0.2                | 10,953.9                  |
| 2005                              | —              | 1.2               | 7.9               | 2,301.2             | 253.5                 | 40.6              | 277.8      | 10,759.7                    | 8.5               | 13,649.1              | 13,650.4              | 0.7                | 13,651.0                  |
| 2006                              | —              | 1.2               | 7.6               | 2,634.3             | 349.4                 | 19.9              | 337.2      | 11,986.5                    | 10.9              | 15,345.7              | 15,346.8              | 0.4                | 15,347.2                  |
| 2007                              | —              | 0.6               | 9.0               | 2,754.5             | 492.3                 | 26.3              | 374.2      | 13,053.2                    | 14.3              | 16,723.8              | 16,724.4              | 0.5                | 16,724.9                  |
| 2008                              | —              | 1.3               | 10.1              | 3,218.2             | 598.8                 | 31.7              | 406.1      | 14,286.3                    | 14.4              | 18,565.7              | 18,566.9              | 0.6                | 18,567.5                  |
| 2009                              | —              | 1.0               | 6.4               | 1,969.8             | 305.0                 | 20.4              | 371.4      | 10,227.8                    | 6.4               | 12,907.1              | 12,908.1              | 0.6                | 12,908.7                  |
| 2010                              | —              | 1.3               | 15.0              | 2,521.4             | 337.1                 | 19.9              | 432.7      | 11,960.6                    | 12.5              | 15,299.2              | 15,300.5              | 0.5                | 15,301.1                  |
| 2011                              | —              | 4.4               | 17.7              | 3,286.1             | 407.9                 | 39.5              | 485.6      | 14,844.8                    | 22.7              | 19,104.3              | 19,108.7              | 0.5                | 19,109.1                  |
| 2012                              | —              | 4.1               | 17.1              | 3,322.9             | 473.0                 | 36.4              | 463.2      | 15,017.2                    | 17.4              | 19,347.1              | 19,351.2              | 0.6                | 19,351.8                  |
| 2013                              | —              | <sup>R</sup> 2.7  | 15.3              | 3,593.6             | 484.5                 | <sup>R</sup> 60.3 | 471.8      | <sup>R</sup> 15,200.8       | 17.8              | <sup>R</sup> 19,844.1 | <sup>R</sup> 19,846.8 | 0.5                | <sup>R</sup> 19,847.4     |
| 2014                              | —              | 3.4               | 11.1              | 3,703.6             | 467.4                 | 49.3              | 492.3      | 14,206.6                    | 13.0              | 18,943.2              | 18,946.6              | 0.4                | 18,947.0                  |

<sup>a</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 "Industrial Sector, Other Petroleum."

<sup>b</sup> Liquefied petroleum gases, includes ethane and olefins.

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

<sup>d</sup> For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

Where shown, R = Revised data and (s) = Value less than 0.05 million dollars.

Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the Technical Notes.

Note: Expenditure 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 ET7. Electric Power Sector Price and Expenditure Estimates, Selected Years, 1970-2014, Michigan

| Year                            | Coal                              | Natural Gas <sup>a</sup> | Petroleum           |                |                   |       | Nuclear Fuel | Biomass                     | Electricity Imports <sup>c</sup> | Total Energy <sup>d</sup> |
|---------------------------------|-----------------------------------|--------------------------|---------------------|----------------|-------------------|-------|--------------|-----------------------------|----------------------------------|---------------------------|
|                                 |                                   |                          | Distillate Fuel Oil | Petroleum Coke | Residual Fuel Oil | Total |              | Wood and Waste <sup>b</sup> |                                  |                           |
|                                 | Prices in Dollars per Million Btu |                          |                     |                |                   |       |              |                             |                                  |                           |
| 1970                            | 0.36                              | 0.42                     | 0.65                | —              | 0.63              | 0.63  | 0.36         | —                           | 1.92                             | 0.39                      |
| 1975                            | 0.92                              | 1.28                     | 2.05                | —              | 1.97              | 1.98  | 0.28         | —                           | 3.89                             | 1.04                      |
| 1980                            | 1.56                              | 2.74                     | 6.07                | —              | 4.10              | 4.24  | 0.49         | —                           | 6.94                             | 1.71                      |
| 1985                            | 1.88                              | 4.43                     | 5.60                | —              | 4.64              | 5.15  | 0.80         | —                           | 9.34                             | 1.74                      |
| 1990                            | 1.60                              | 2.11                     | 4.60                | —              | 2.89              | 3.26  | 0.79         | 0.46                        | 8.37                             | 1.45                      |
| 1995                            | 1.45                              | 2.00                     | 3.90                | —              | 2.62              | 2.94  | 0.65         | 0.70                        | 6.21                             | 1.40                      |
| 1996                            | 1.40                              | 2.69                     | 4.87                | 0.97           | 2.91              | 3.26  | 0.59         | 0.59                        | 6.37                             | 1.37                      |
| 1997                            | 1.37                              | 2.56                     | 4.44                | —              | 3.11              | 3.40  | 0.59         | 0.50                        | 6.71                             | 1.39                      |
| 1998                            | 1.33                              | 2.32                     | 3.16                | 0.94           | 2.69              | 2.70  | 0.65         | 0.61                        | 7.87                             | 1.42                      |
| 1999                            | 1.31                              | 2.52                     | 4.12                | 0.70           | 2.59              | 2.81  | 0.60         | 0.67                        | 8.69                             | 1.39                      |
| 2000                            | 1.30                              | 3.90                     | 5.91                | 0.65           | 3.35              | 3.77  | 0.61         | 0.67                        | 16.78                            | 1.56                      |
| 2001                            | 1.27                              | 3.77                     | 5.84                | 0.81           | 3.81              | 4.27  | 0.48         | 1.36                        | 20.47                            | 1.40                      |
| 2002                            | 1.30                              | 3.52                     | 5.13                | 0.91           | 2.37              | 2.97  | 0.43         | 1.64                        | 8.94                             | 1.37                      |
| 2003                            | 1.34                              | 3.83                     | 6.65                | 0.94           | 4.26              | 4.79  | 0.42         | 1.58                        | 13.21                            | 1.41                      |
| 2004                            | 1.38                              | 4.35                     | 8.30                | 0.87           | 4.55              | 5.43  | 0.42         | 1.46                        | 13.84                            | 1.57                      |
| 2005                            | 1.55                              | 5.51                     | 11.78               | 1.21           | 6.83              | 7.35  | 0.43         | 2.28                        | 16.53                            | 1.80                      |
| 2006                            | 1.64                              | 5.95                     | 14.40               | 1.31           | 7.20              | 8.38  | 0.40         | 2.32                        | 17.32                            | 1.79                      |
| 2007                            | 1.69                              | 6.53                     | 16.41               | 1.78           | 7.55              | 8.60  | 0.47         | 2.42                        | 18.25                            | 1.99                      |
| 2008                            | 1.93                              | 8.62                     | 24.38               | 1.46           | 10.59             | 13.01 | 0.51         | 2.66                        | 18.28                            | 2.42                      |
| 2009                            | 2.03                              | 4.48                     | 12.98               | 1.91           | 7.50              | 7.68  | 0.66         | 2.20                        | 12.10                            | 2.20                      |
| 2010                            | 2.09                              | 4.90                     | 16.76               | 1.70           | 8.93              | 9.63  | 0.78         | 2.40                        | 13.31                            | 2.25                      |
| 2011                            | 2.66                              | 4.69                     | 22.17               | 4.01           | 13.28             | 15.80 | 0.76         | 2.43                        | 11.53                            | 2.44                      |
| 2012                            | 2.78                              | 3.16                     | 22.67               | 4.10           | 15.06             | 14.55 | 0.79         | 2.22                        | 9.51                             | 2.42                      |
| 2013                            | 2.66                              | <sup>R</sup> 4.49        | 22.75               | 1.43           | 14.07             | 7.32  | 0.80         | 2.25                        | 11.49                            | 2.51                      |
| 2014                            | 2.60                              | 6.63                     | 21.30               | 1.45           | 12.93             | 3.98  | 0.70         | 2.70                        | 13.31                            | 2.68                      |
| Expenditures in Million Dollars |                                   |                          |                     |                |                   |       |              |                             |                                  |                           |
| 1970                            | 173.4                             | 27.2                     | 3.6                 | —              | 17.9              | 21.5  | 1.5          | —                           | 6.7                              | 230.3                     |
| 1975                            | 456.8                             | 60.7                     | 18.4                | —              | 174.9             | 193.2 | 22.2         | —                           | 24.9                             | 757.9                     |
| 1980                            | 832.3                             | 53.2                     | 27.5                | —              | 248.2             | 275.7 | 85.1         | —                           | 138.9                            | 1,385.2                   |
| 1985                            | 1,138.3                           | 20.6                     | 21.1                | —              | 15.2              | 36.3  | 115.0        | —                           | 15.5                             | 1,325.6                   |
| 1990                            | 1,061.0                           | 145.6                    | 9.1                 | —              | 20.9              | 30.0  | 179.7        | 4.2                         | 1.1                              | 1,421.6                   |
| 1995                            | 972.6                             | 209.6                    | 9.3                 | —              | 18.1              | 27.4  | 167.9        | 13.8                        | 122.9                            | 1,514.3                   |
| 1996                            | 952.8                             | 328.8                    | 8.5                 | (s)            | 22.6              | 31.1  | 166.2        | 13.8                        | 46.2                             | 1,539.0                   |
| 1997                            | 932.8                             | 319.3                    | 8.1                 | —              | 20.1              | 28.2  | 134.8        | 11.3                        | 77.5                             | 1,503.8                   |
| 1998                            | 967.8                             | 305.4                    | 8.6                 | 0.6            | 27.6              | 36.8  | 85.7         | 13.7                        | 54.4                             | 1,463.7                   |
| 1999                            | 930.2                             | 338.3                    | 12.1                | 0.3            | 34.5              | 46.9  | 91.3         | 14.5                        | 26.4                             | 1,447.5                   |
| 2000                            | 905.7                             | 491.2                    | 12.9                | (s)            | 35.4              | 48.3  | 119.6        | 17.1                        | 76.1                             | 1,658.1                   |
| 2001                            | 880.3                             | 496.9                    | 12.5                | (s)            | 27.5              | 40.1  | 132.9        | 34.1                        | 5.2                              | 1,589.6                   |
| 2002                            | 861.6                             | 518.8                    | 16.0                | 0.4            | 22.9              | 39.3  | 138.4        | 40.7                        | 7.3                              | 1,606.0                   |
| 2003                            | 898.1                             | 400.9                    | 18.7                | 0.3            | 30.9              | 49.9  | 121.8        | 39.2                        | 56.5                             | 1,566.4                   |
| 2004                            | 950.7                             | 588.7                    | 19.0                | 0.1            | 31.8              | 50.8  | 135.0        | 36.9                        | 97.0                             | 1,859.2                   |
| 2005                            | 1,113.7                           | 731.4                    | 25.5                | 1.2            | 47.2              | 73.9  | 146.7        | 53.0                        | 94.8                             | 2,213.4                   |
| 2006                            | 1,140.4                           | 656.5                    | 25.2                | 1.6            | 10.5              | 37.3  | 122.2        | 53.8                        | 21.1                             | 2,031.2                   |
| 2007                            | 1,219.5                           | 819.7                    | 28.0                | 2.6            | 25.1              | 55.6  | 154.0        | 53.5                        | 104.7                            | 2,407.0                   |
| 2008                            | 1,377.3                           | 817.7                    | 40.5                | 2.0            | 14.3              | 56.7  | 166.9        | 60.5                        | 393.2                            | 2,872.4                   |
| 2009                            | 1,385.4                           | 381.3                    | 19.3                | 2.6            | 6.0               | 27.8  | 150.3        | 48.5                        | 312.9                            | 2,306.2                   |
| 2010                            | 1,418.0                           | 562.8                    | 24.7                | 2.1            | 6.6               | 33.4  | 242.0        | 52.6                        | 277.8                            | 2,586.7                   |
| 2011                            | 1,652.1                           | 536.8                    | 41.1                | 3.8            | 3.7               | 48.5  | 260.4        | 55.7                        | 178.0                            | 2,731.6                   |
| 2012                            | 1,556.6                           | 581.8                    | 29.2                | 4.2            | 4.8               | 38.1  | 231.8        | 49.5                        | 148.4                            | 2,606.2                   |
| 2013                            | 1,566.7                           | <sup>R</sup> 507.0       | 29.2                | 5.1            | 2.5               | 36.9  | 243.2        | 52.2                        | <sup>R</sup> 236.4               | <sup>R</sup> 2,642.4      |
| 2014                            | 1,441.1                           | 758.1                    | 32.1                | 15.4           | 1.3               | 48.8  | 227.6        | 66.8                        | 280.4                            | 2,822.8                   |

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

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

<sup>c</sup> Electricity imported from Canada and Mexico.

<sup>d</sup> There are no direct fuel costs for hydroelectric, geothermal, wind, photovoltaic, or solar thermal energy.

Where shown, R = Revised data, — = No consumption, and (s) = Value less than 0.05 million dollars.

Notes: Expenditure 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 include independent power producers.

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.