

**Table ET5. Industrial Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2021, Pennsylvania**

| Year                              | Primary Energy |            |       |                          |                     |                  |                             |                   |                    |         |                        |                               | Electricity <sup>i</sup> | Total Energy <sup>f,g,h</sup> |
|-----------------------------------|----------------|------------|-------|--------------------------|---------------------|------------------|-----------------------------|-------------------|--------------------|---------|------------------------|-------------------------------|--------------------------|-------------------------------|
|                                   | Coal           |            |       | Natural Gas <sup>a</sup> | Petroleum           |                  |                             |                   |                    | Biomass | Total <sup>f,g,h</sup> |                               |                          |                               |
|                                   | Coking Coal    | Steam Coal | Total |                          | Distillate Fuel Oil | HGL <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                              | 0.44           | 0.32       | 0.41  | 0.57                     | 0.70                | 1.45             | 2.92                        | 0.50              | 1.82               | 1.01    | 1.60                   | 0.56                          | 3.55                     | 0.79                          |
| 1975                              | 1.52           | 1.25       | 1.47  | 1.07                     | 2.38                | 2.99             | 4.72                        | 2.07              | 3.24               | 2.61    | 1.60                   | 1.62                          | 7.99                     | 2.25                          |
| 1980                              | 2.20           | 1.33       | 2.03  | 3.00                     | 5.67                | 5.59             | 9.71                        | 4.07              | 7.68               | 6.17    | 1.62                   | 3.04                          | 12.87                    | 4.24                          |
| 1985                              | 1.88           | 1.61       | 1.81  | 4.77                     | 6.40                | 9.96             | 9.01                        | 4.70              | 9.07               | 7.99    | 1.62                   | 3.88                          | 17.07                    | 6.01                          |
| 1990                              | 1.71           | 1.47       | 1.65  | 4.01                     | 5.89                | 11.51            | 9.35                        | 3.46              | 7.20               | 6.54    | 1.08                   | 3.39                          | 17.51                    | 5.67                          |
| 1995                              | 1.72           | 1.35       | 1.63  | 3.77                     | 5.05                | 9.15             | 9.73                        | 2.80              | 8.01               | 7.03    | 1.28                   | 3.17                          | 17.35                    | 5.54                          |
| 2000                              | 1.66           | 1.34       | 1.56  | 4.95                     | 7.74                | 13.36            | 12.12                       | 4.20              | 9.67               | 9.07    | 1.40                   | 4.21                          | 16.50                    | 6.54                          |
| 2005                              | 3.01           | 2.21       | 2.80  | 10.81                    | 13.88               | 19.67            | 18.23                       | 7.56              | 11.50              | 13.27   | 2.60                   | 7.86                          | 18.45                    | 10.06                         |
| 2006                              | 3.33           | 2.31       | 3.06  | 11.84                    | 15.87               | 21.88            | 20.91                       | 8.60              | 14.45              | 15.99   | 2.53                   | 9.26                          | 19.44                    | 11.36                         |
| 2007                              | 3.49           | 2.45       | 3.23  | 10.24                    | 18.10               | 25.58            | 22.70                       | 9.60              | 16.46              | 18.24   | 2.41                   | 9.46                          | 20.14                    | 11.72                         |
| 2008                              | 4.41           | 2.90       | 4.02  | 11.64                    | 25.06               | 30.74            | 26.65                       | 12.76             | 18.96              | 22.94   | 2.70                   | 11.54                         | 20.61                    | 13.45                         |
| 2009                              | 5.18           | 3.08       | 4.48  | 8.84                     | 15.12               | 25.39            | 19.61                       | 9.54              | 20.08              | 19.57   | 2.54                   | 10.32                         | 21.14                    | 12.89                         |
| 2010                              | 5.47           | 3.15       | 4.83  | 7.94                     | 18.09               | 29.26            | 23.21                       | 12.91             | 18.91              | 21.11   | 2.53                   | 10.01                         | 22.44                    | 12.73                         |
| 2011                              | 6.60           | 3.60       | 5.81  | 9.49                     | 24.53               | 36.54            | 29.48                       | 18.07             | 22.16              | 26.40   | 2.50                   | 12.20                         | 22.66                    | 14.67                         |
| 2012                              | 6.32           | 3.69       | 5.77  | 9.18                     | 25.63               | 28.45            | 30.58                       | 18.61             | 22.50              | 25.23   | 2.41                   | 11.58                         | 21.18                    | 13.81                         |
| 2013                              | 5.47           | 3.44       | 5.11  | 8.69                     | 24.57               | R 31.21          | 29.70                       | 17.63             | 22.94              | 25.31   | 2.34                   | 10.82                         | 20.42                    | 12.83                         |
| 2014                              | 4.47           | 3.43       | 4.30  | 9.47                     | 22.72               | R 32.41          | 28.73                       | 14.60             | 22.59              | 24.37   | 2.78                   | 10.88                         | 21.72                    | 13.06                         |
| 2015                              | 3.92           | 3.34       | 3.82  | 8.19                     | 14.59               | R 18.00          | 20.81                       | 8.98              | 19.03              | 17.40   | 2.65                   | 8.69                          | 21.09                    | 11.28                         |
| 2016                              | 3.49           | 3.12       | 3.42  | 7.10                     | 11.62               | R 16.12          | 18.81                       | 8.03              | 15.59              | 14.70   | 2.46                   | 7.61                          | 20.29                    | 10.52                         |
| 2017                              | 3.83           | 3.28       | 3.77  | 8.03                     | 15.03               | R 21.56          | 21.48                       | 8.82              | R 16.51            | R 17.07 | 2.36                   | 8.68                          | 19.84                    | 11.19                         |
| 2018                              | 4.11           | 3.46       | 4.06  | 8.36                     | 16.14               | R 25.14          | 23.52                       | 9.94              | R 19.94            | R 19.69 | 2.24                   | R 9.40                        | 20.04                    | R 11.80                       |
| 2019                              | 4.63           | 3.52       | 4.55  | 8.20                     | 14.95               | R 17.63          | 22.19                       | 9.97              | R 20.01            | R 18.06 | 2.37                   | R 9.17                        | 18.78                    | R 11.36                       |
| 2020                              | 3.96           | 3.36       | 3.90  | 7.68                     | 10.67               | R 15.82          | 19.17                       | 7.86              | R 19.23            | R 16.08 | R 2.00                 | R 8.47                        | 18.05                    | R 10.96                       |
| 2021                              | 3.70           | 3.56       | 3.69  | 8.19                     | 14.67               | 32.24            | 25.62                       | 11.71             | 21.60              | 21.34   | 2.33                   | 9.68                          | 19.16                    | 11.88                         |

  

| Expenditures in Million Dollars |         |       |         |         |         |           |       |       |           |           |        |           |         |            |
|---------------------------------|---------|-------|---------|---------|---------|-----------|-------|-------|-----------|-----------|--------|-----------|---------|------------|
| 1970                            | 317.5   | 64.3  | 381.8   | 186.2   | 38.9    | 12.6      | 18.1  | 60.9  | 142.0     | 272.4     | 8.5    | 848.9     | 458.4   | 1,307.3    |
| 1975                            | 913.7   | 172.0 | 1,085.7 | 266.6   | 144.8   | 36.2      | 27.2  | 196.0 | 247.2     | 651.5     | 9.5    | 2,013.2   | 1,092.1 | 3,105.4    |
| 1980                            | 1,005.0 | 150.8 | 1,155.8 | 957.9   | 358.4   | 102.8     | 29.9  | 153.1 | 558.5     | 1,202.7   | 20.1   | 3,336.6   | 1,964.8 | 5,301.4    |
| 1985                            | 492.9   | 154.7 | 647.5   | 1,077.2 | 235.6   | 153.7     | 60.4  | 70.5  | 592.6     | 1,112.8   | 23.5   | 2,861.1   | 2,430.3 | 5,291.4    |
| 1990                            | 480.0   | 148.9 | 628.9   | 943.7   | 255.7   | 116.5     | 58.0  | 106.1 | 601.1     | 1,137.4   | 12.1   | 2,722.1   | 2,702.2 | 5,424.3    |
| 1995                            | 500.7   | 135.5 | 636.2   | 933.1   | 125.4   | 50.7      | 47.3  | 36.1  | 646.2     | 905.7     | 28.0   | 2,503.0   | 2,744.0 | 5,247.0    |
| 2000                            | 319.8   | 114.3 | 434.1   | 1,095.5 | 248.2   | 78.7      | 44.3  | 35.4  | 767.3     | 1,174.0   | 27.5   | 2,731.0   | 2,497.7 | 5,228.7    |
| 2005                            | 549.4   | 148.9 | 698.3   | 1,843.9 | 445.4   | 408.0     | 174.2 | 61.2  | 997.1     | 2,085.8   | 43.7   | 4,671.7   | 2,875.4 | 7,547.1    |
| 2006                            | 589.6   | 145.7 | 735.4   | 2,097.4 | 671.1   | 533.8     | 228.9 | 72.4  | 1,212.9   | 2,719.1   | 42.7   | 5,594.6   | 3,059.6 | 8,654.3    |
| 2007                            | 606.4   | 143.1 | 749.5   | 1,874.4 | 820.6   | 589.6     | 179.9 | 65.4  | 1,290.0   | 2,945.4   | 39.8   | 5,609.1   | 3,199.4 | 8,808.5    |
| 2008                            | 743.9   | 168.9 | 912.8   | 2,121.3 | 1,269.3 | 877.6     | 113.9 | 76.3  | 1,358.5   | 3,695.6   | 45.6   | 6,775.3   | 3,234.5 | 10,009.8   |
| 2009                            | 510.1   | 151.0 | 661.1   | 1,413.7 | 479.0   | 658.9     | 83.8  | 41.2  | 1,296.1   | 2,559.0   | 36.0   | 4,669.9   | 2,982.3 | 7,652.1    |
| 2010                            | 738.0   | 160.2 | 898.2   | 1,546.0 | 615.6   | 864.9     | 240.8 | 51.5  | 1,090.3   | 2,863.2   | 46.7   | 5,354.1   | 3,351.2 | 8,705.3    |
| 2011                            | 875.5   | 169.3 | 1,044.8 | 1,745.6 | 995.5   | R 1,130.5 | 185.2 | 78.0  | 1,157.1   | 3,546.3   | 67.0   | 6,403.8   | 3,677.0 | R 10,080.8 |
| 2012                            | 927.2   | 142.0 | 1,069.1 | 1,668.3 | 1,164.1 | 620.0     | 320.9 | 23.2  | 1,127.5   | R 3,255.7 | 65.2   | R 6,058.3 | 3,356.1 | R 9,414.5  |
| 2013                            | 976.9   | 131.1 | 1,108.0 | 1,853.2 | 1,232.5 | R 655.6   | 320.6 | 14.1  | 1,235.3   | R 3,458.1 | 80.4   | R 6,499.7 | 3,249.4 | R 9,749.1  |
| 2014                            | 826.9   | 125.5 | 952.4   | 2,244.8 | 1,299.6 | R 695.7   | 249.3 | 6.9   | 1,410.9   | R 3,662.5 | 82.0   | R 6,941.7 | 3,487.8 | R 10,429.5 |
| 2015                            | 674.7   | 116.9 | 791.6   | 1,714.7 | 744.5   | R 371.7   | 157.2 | 4.0   | 1,276.1   | R 2,553.6 | 73.5   | R 5,133.3 | 3,296.7 | R 8,430.0  |
| 2016                            | 456.5   | 89.6  | 546.1   | 1,452.7 | 427.2   | R 340.0   | 141.2 | 6.2   | 1,004.9   | R 1,919.5 | 71.7   | R 3,989.9 | 3,158.2 | R 7,148.1  |
| 2017                            | 574.0   | 56.0  | 630.0   | 1,705.3 | 628.7   | R 444.5   | 163.2 | 4.9   | R 1,080.1 | R 2,321.4 | 68.8   | R 4,725.4 | 3,136.7 | R 7,862.2  |
| 2018                            | 666.8   | 46.8  | 713.6   | 1,868.2 | 699.1   | R 528.6   | 181.1 | 4.7   | R 1,200.6 | R 2,614.1 | R 60.3 | R 5,256.2 | 3,253.5 | R 8,509.6  |
| 2019                            | 733.2   | 42.3  | 775.5   | 1,963.1 | 655.2   | R 362.8   | 170.5 | 5.5   | R 1,214.5 | R 2,408.5 | R 58.5 | R 5,205.6 | 3,151.4 | R 8,357.1  |
| 2020                            | 418.6   | 41.4  | 460.0   | 1,618.0 | 342.7   | R 345.4   | 148.5 | 5.2   | R 984.3   | R 1,826.2 | R 49.4 | R 3,953.5 | 2,961.6 | R 6,915.0  |
| 2021                            | 565.7   | 41.3  | 607.0   | 1,950.8 | 629.8   | 725.2     | 195.9 | 6.2   | 1,209.5   | 2,766.5   | 55.2   | 5,379.5   | 3,229.7 | 8,609.3    |

<sup>a</sup> Includes supplemental gaseous fuels that are commingled with natural gas.  
<sup>b</sup> Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.  
<sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline. There is a discontinuity in the expenditure series between 2014 and 2015 because of changes in consumption estimates from the source. See Consumption Technical Notes, Section 4.  
<sup>d</sup> Includes asphalt and road oil, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.  
<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, solar, or wind energy.

<sup>h</sup> For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.  
<sup>i</sup> Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.  
 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. The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants.  
 Web Page: All data are available at <https://www.eia.gov/state/seds/seds-data-complete.php>.  
 Data Source: U.S. Energy Information Administration, State Energy Data System. See Technical Notes. <http://www.eia.gov/state/seds/>