

Table ET1. Primary energy, electricity, and total energy price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Primary energy												Nuclear fuel	Biomass Wood and waste g,h	Total h,i,j,k	Electric power sector i,k,l	Electricity m	Total energy h,i,j
	Coal			Natural gas a	Petroleum						Total							
	Coking coal	Steam coal	Total		Distillate fuel oil b	HGL c	Jet fuel d	Motor gasoline e	Residual fuel oil	Other f								
Prices in dollars per million Btu																		
1970	0.44	0.35	0.39	0.87	1.17	1.78	0.72	2.92	0.47	2.01	1.73	0.21	0.96	0.97	0.34	5.23	1.47	
1975	1.52	1.02	1.20	1.53	2.65	3.40	2.01	4.72	2.02	3.51	3.47	0.25	1.19	2.02	0.93	10.37	3.25	
1980	2.20	1.34	1.58	3.37	6.70	6.22	6.27	9.71	4.30	8.14	7.73	0.42	1.84	4.00	1.55	15.17	6.37	
1985	1.88	1.57	1.63	5.74	7.68	10.32	5.84	9.01	4.38	9.30	8.08	0.92	1.95	4.44	1.61	21.24	8.40	
1990	1.71	1.52	1.56	5.28	7.66	11.90	5.59	9.35	3.20	7.94	8.02	0.83	1.75	4.03	1.35	22.43	8.56	
1995	1.72	1.36	1.43	5.35	6.83	11.25	3.87	9.73	2.63	8.16	7.96	0.56	1.28	3.86	1.09	23.25	8.79	
2000	1.66	1.17	1.23	6.81	10.17	14.90	6.81	12.12	3.64	10.66	10.58	0.48	1.34	4.82	1.00	22.43	10.70	
2005	3.01	1.62	1.79	12.19	16.38	20.07	12.64	18.23	6.84	13.11	16.24	0.37	3.02	7.69	1.61	24.33	15.66	
2006	3.33	1.75	1.94	12.89	18.63	22.39	14.56	20.91	7.87	16.68	19.07	0.40	3.09	8.59	1.56	25.50	17.57	
2007	3.49	1.79	1.98	11.45	20.00	25.34	15.79	22.70	8.08	19.04	20.79	0.44	3.28	8.89	1.73	26.69	18.34	
2008	4.41	2.14	2.41	13.09	26.23	30.24	23.07	26.65	12.19	22.02	25.77	0.47	3.85	10.92	2.10	27.44	21.41	
2009	5.18	2.33	2.56	9.75	18.01	25.61	12.59	19.61	8.49	22.77	18.97	0.57	3.42	8.35	1.89	28.25	18.13	
2010	5.47	2.44	2.75	8.73	21.52	28.93	16.10	23.21	12.02	R 22.67	R 22.42	0.65	3.77	9.08	2.12	30.29	R 19.62	
2011	6.60	2.60	3.04	8.51	27.45	33.94	22.71	29.48	17.16	R 26.81	R 28.45	0.69	3.99	10.95	2.23	30.73	R 22.73	
2012	6.32	2.49	3.00	7.09	29.00	28.38	23.18	30.58	17.37	R 27.25	R 29.27	0.75	3.88	10.96	1.97	29.12	R 22.77	
2013	5.47	2.51	2.98	7.63	28.20	29.39	22.10	29.70	16.58	R 27.26	R 28.54	0.82	4.00	R 10.77	2.16	28.82	R 21.55	
2014	4.47	2.55	2.89	8.19	27.53	31.15	20.90	28.73	16.07	R 26.46	R 27.78	0.78	4.41	10.89	2.36	30.20	R 21.30	
2015	3.92	2.34	2.65	6.38	19.55	21.03	11.99	20.81	8.52	R 22.66	19.98	0.71	R 3.80	8.26	1.70	30.33	R 17.75	
2016	3.49	1.96	2.23	5.26	16.47	19.64	9.49	18.81	6.60	R 19.18	17.56	0.68	R 3.26	7.16	1.39	29.96	16.63	
2017	3.83	1.93	2.35	6.09	R 19.04	24.13	12.04	21.48	8.69	19.72	20.14	0.74	R 3.33	8.27	1.59	29.79	17.94	
2018	4.11	2.13	2.63	R 6.56	22.00	26.24	15.86	23.52	10.62	23.36	22.63	0.73	R 3.65	9.23	1.81	29.70	18.96	
2019	4.63	1.93	2.68	5.85	21.53	20.83	14.64	22.19	10.15	R 23.45	21.45	0.68	R 3.70	8.67	1.54	28.84	18.31	
2020	3.96	1.80	2.41	4.75	18.41	18.12	8.97	19.17	7.68	R 22.59	18.57	0.64	R 2.91	7.22	1.24	28.46	R 17.08	
2021	3.70	2.91	3.16	5.99	22.31	28.89	14.28	25.62	11.36	R 24.87	24.06	0.63	R 3.62	R 9.40	2.19	29.26	R 19.53	
2022	6.07	3.25	4.26	R 8.75	35.70	18.06	26.76	33.59	18.88	R 31.72	32.37	0.63	R 4.87	13.17	R 3.54	34.82	R 25.10	
2023	6.53	2.52	4.42	6.24	30.54	11.35	21.27	29.88	15.69	28.61	27.18	0.64	4.51	11.10	1.52	36.89	23.67	

Expenditures in million dollars																	
1970	317.5	339.6	657.1	653.4	429.1	31.5	36.9	1,559.6	157.4	221.2	2,435.7	1.1	10.9	3,758.2	-296.5	1,329.8	4,791.6
1975	913.7	1,063.9	1,977.6	964.8	1,039.9	75.7	97.3	2,695.2	441.3	342.6	4,691.9	44.3	14.4	7,692.9	-1,047.7	3,060.5	9,705.8
1980	1,005.0	1,574.0	2,579.0	2,489.5	2,665.1	162.7	360.1	5,507.0	798.1	803.8	10,296.9	55.4	52.2	15,472.9	-1,997.2	5,096.8	18,572.5
1985	492.9	1,804.1	2,297.0	3,444.8	2,583.3	276.2	334.6	4,827.1	483.8	897.7	9,402.8	257.5	57.2	15,459.3	-2,228.4	7,202.9	20,433.8
1990	480.0	1,812.2	2,292.2	3,325.7	2,660.7	263.8	380.7	5,277.2	360.8	850.3	9,793.6	506.8	65.6	15,983.9	-2,369.5	8,722.9	22,337.3
1995	500.7	1,623.8	2,124.5	3,793.5	2,446.3	227.6	269.9	5,685.0	212.9	910.9	9,752.6	387.6	86.1	16,144.8	-2,044.5	9,923.4	24,023.6
2000	319.8	1,534.1	1,853.9	4,529.2	4,052.0	393.8	734.5	7,441.1	261.0	1,137.9	14,020.3	371.0	83.4	20,857.7	-2,068.0	10,158.8	28,948.6
2005	549.4	2,124.3	2,673.7	8,051.5	6,824.6	844.8	1,205.6	11,715.4	583.5	1,445.1	22,619.0	298.5	163.7	33,808.2	-3,519.9	12,118.5	42,406.8
2006	589.6	2,314.4	2,904.1	8,134.5	7,702.6	1,032.9	1,359.5	13,301.2	334.6	1,724.1	25,454.9	316.0	165.4	36,976.8	-3,387.8	12,560.4	46,149.4
2007	606.4	2,353.2	2,959.6	8,284.3	8,123.6	1,204.2	1,387.6	14,469.5	325.5	1,757.7	27,268.1	356.5	181.4	39,059.8	-3,879.6	13,618.7	48,798.9
2008	743.9	2,677.3	3,421.1	9,383.5	11,623.2	1,693.8	1,888.5	16,418.4	416.3	1,818.1	33,858.2	382.3	227.0	47,327.6	-4,622.3	13,880.5	56,585.9
2009	510.1	2,622.5	3,132.6	7,444.7	R 6,069.5	1,413.4	890.3	12,185.8	219.0	1,729.5	R 22,507.5	457.6	208.7	R 33,776.6	-4,044.6	13,643.6	R 43,375.6
2010	738.0	2,869.2	3,607.2	7,209.8	R 7,650.4	1,658.6	1,120.2	14,424.0	146.0	R 1,562.5	R 26,561.7	528.1	256.6	R 38,198.3	-4,717.7	15,222.4	R 48,702.9
2011	875.5	2,809.9	3,685.4	7,437.4	R 9,954.3	2,012.2	1,556.3	17,871.8	151.6	R 1,637.3	R 33,183.4	549.2	296.9	R 45,178.6	-4,862.2	15,382.9	R 55,699.3
2012	927.2	2,355.4	3,282.6	6,576.7	R 10,351.3	1,315.9	1,574.0	18,359.0	166.3	R 1,554.4	R 33,320.9	594.4	276.3	R 44,095.1	-4,215.3	14,218.8	R 54,098.5
2013	976.9	2,381.7	3,358.6	R 7,570.7	R 10,346.0	1,454.8	1,547.2	17,947.3	129.1	R 1,662.0	R 33,086.5	672.7	330.5	R 45,063.8	-4,617.7	14,242.2	R 54,688.3
2014	826.9	2,179.5	3,006.4	R 8,819.9	R 10,872.7	1,637.8	1,450.1	17,071.2	89.4	R 1,865.6	R 32,986.7	639.3	R 342.2	R 45,820.7	-4,897.7	14,984.4	R 55,907.4
2015	674.7	1,650.9	2,325.6	R 6,841.6	R 7,371.6	1,055.4	830.7	12,318.2	21.9	R 1,692.9	R 23,290.8	601.7	R 309.1	R 33,389.2	-3,410.7	14,979.7	R 44,958.2
2016	456.5	1,184.0	1,640.5	R 5,785.7	R 5,383.9	974.9	667.6	11,211.1	23.4	R 1,375.0	R 19,635.8	588.2	R 256.2	R 27,915.8	-2,763.3	14,702.2	R 39,854.6
2017	574.0	1,001.8	1,575.8	6,942.5	R 6,335.6	1,193.8	874.4	12,899.2	15.6	1,406.5	R 22,725.1	647.7	R 261.6	R 32,153.8	-3,094.4	14,376.2	R 43,435.5
2018	666.8	1,024.9	1,691.7	R 7,980.2	R 8,106.7	1,414.0	R 1,182.7	13,727.4	19.3	1,538.0	R 25,988.1	635.1	R 293.0	R 36,590.2	-3,502.3	14,937.3	R 48,025.3
2019	733.2	793.6	1,526.8	R 7,913.7	R 7,478.9	1,164.9	R 1,139.5	13,001.5	23.2	R 1,557.3	R 24,365.4	588.4	R 273.0	R 34,667.2	-3,059.7	14,203.0	R 45,810.6
2020	418.6	484.5	903.1	R 6,921.2	R 5,707.8	938.7	R 404.8	9,586.0	10.7	R 1,264.0	R 17,912.0	513.3	R 197.3	R 26,446.8	-2,406.0	13,516.5	R 37,557.3
2021	565.7	965.7	1,531.3	R 9,089.2	R 7,765.1	1,538.6	R 752.6	13,888.7	22.7	R 1,514.0	R 25,481.7	502.1	R 235.1	R 36,839.4	-4,417.7	14,250.4	R 46,672.2
2022	949.8	906.2	1,856.0	R 13,908.6	R 12,806.6	1,839.9	R 1,516.7	17,902.2	41.0	R 2,127.9	R 36,234.3	503.0	R 356.8	R 52,858.7	R 7,066.0	17,161.6	R 62,954.3
2023	953.0	406.9	1,359.9	9,979.1	10,560.5	1,647.9	1,334.6	15,880.8	26.2	1,811.3	31,261.3	505.1	311.9	43,417.3	-2,952.0	17,401.3	57,866.6

a Includes supplemental gaseous fuels that are commingled with natural gas.
b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel and renewable diesel product supplied.
c Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
d 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." There is a discontinuity in expenditures time series between 2009 and 2010 because of consumption data source and methodology changes, see technical notes.
e Beginning in 1993, includes fuel ethanol blended into motor gasoline.
f Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See technical notes, Section 4.
g Wood, wood-derived fuels, and biomass waste. Beginning in 2006, includes small amount of other biomass liquids that are biodiesel. Prior to 2001, includes non-biomass waste.
h 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.

i There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.
j For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
k Electricity imports are included in total primary energy and electric power sector but are not shown separately.
l Expenditures for fuels purchased for electric power generation, included in the expenditure columns for the primary energy sources, are shown as negative expenditures because they need to be removed from total energy expenditures, to avoid double counting.
m 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.
n Where shown, - = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the technical notes.
o Note: Expenditure totals may not equal sum of components due to independent rounding.
p Web page: All data are available at <https://www.eia.gov/state/seds/seds-data-complete.php>.
q Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table ET2. Total end-use energy price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Primary energy										Electricity ^k	Total energy ^{h,i,j}	
	Coal	Natural gas ^a	Petroleum					Biomass	Total ^{h,i,j}				
			Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Motor gasoline ^e	Residual fuel oil			Other ^f			Wood and waste ^{g,h}
Prices in dollars per million Btu													
1970	0.44	0.88	1.22	1.78	0.72	2.92	0.48	2.01	1.89	0.96	1.15	5.23	1.47
1975	1.48	1.53	2.67	3.40	2.01	4.72	2.00	3.51	3.56	1.19	2.47	10.37	3.25
1980	2.00	3.37	6.72	6.22	6.27	9.71	3.99	8.29	8.04	1.84	5.22	15.17	6.37
1985	1.81	5.74	7.72	10.32	5.84	9.01	4.50	9.71	8.39	1.95	6.32	21.24	8.40
1990	1.66	5.34	7.74	11.90	5.59	9.35	3.14	8.36	8.25	2.14	6.13	22.43	8.56
1995	1.62	5.56	6.90	11.25	3.87	9.73	2.68	8.73	8.18	1.68	6.11	23.25	8.79
2000	1.56	6.91	10.31	14.90	6.81	12.12	3.67	10.68	10.79	2.03	8.34	22.43	10.70
2005	2.77	12.52	16.46	20.07	12.64	18.23	6.98	13.45	16.62	3.64	13.71	24.33	15.66
2006	3.02	13.96	18.68	22.39	14.56	20.91	7.94	16.84	19.15	3.79	15.73	25.50	17.57
2007	3.18	12.40	20.09	25.34	15.79	22.70	8.30	19.04	20.92	4.07	16.36	26.69	18.34
2008	4.03	13.85	26.29	30.24	23.07	26.65	12.18	22.21	25.85	4.96	19.98	27.44	21.41
2009	4.49	11.84	18.07	25.61	12.59	19.61	8.58	22.99	19.05	4.49	15.57	28.25	18.13
2010	4.82	10.31	21.58	28.93	16.10	23.21	11.95	R 22.67	R 22.46	R 4.86	R 16.91	R 30.29	R 19.62
2011	5.80	10.64	27.51	33.94	22.71	29.48	16.95	R 26.81	R 28.48	4.97	20.67	30.73	R 22.73
2012	5.78	10.25	29.05	28.38	23.18	30.58	17.12	R 27.25	29.29	4.93	R 21.13	29.12	R 22.77
2013	5.11	9.88	28.24	29.39	22.10	29.70	16.35	R 27.26	R 28.56	4.88	R 19.79	28.82	R 21.55
2014	4.30	10.20	27.59	31.15	20.90	28.73	15.49	R 26.46	R 27.82	R 5.29	19.23	30.20	21.30
2015	3.83	9.31	R 19.62	21.03	11.99	20.81	8.52	R 22.66	R 20.01	R 4.39	14.70	30.33	R 17.75
2016	3.43	8.32	16.54	19.64	9.49	18.81	6.60	R 19.18	17.58	R 3.65	13.20	29.96	16.63
2017	3.78	9.33	19.09	24.13	12.04	21.48	8.69	19.72	20.16	R 3.82	14.99	29.79	17.94
2018	4.06	9.51	R 22.13	26.24	15.86	23.52	10.56	23.36	22.68	R 4.37	16.30	29.70	18.96
2019	4.55	R 9.58	21.58	20.83	14.64	22.19	10.12	R 23.45	21.47	R 4.37	15.73	28.84	18.31
2020	3.90	9.25	18.44	18.12	8.97	19.17	7.64	R 22.59	18.58	R 3.44	13.95	28.46	R 17.08
2021	3.69	9.70	R 22.33	28.89	14.28	25.62	11.34	R 24.87	24.07	R 4.16	R 17.04	29.26	R 19.53
2022	5.96	12.35	35.80	18.06	26.76	33.59	18.59	R 31.72	32.39	R 5.50	R 22.72	34.82	R 25.10
2023	6.48	12.91	30.57	11.35	21.27	29.88	15.61	28.61	27.19	5.00	20.51	36.89	23.67

Expenditures in million dollars													
1970	443.5	649.4	417.8	31.5	36.9	1,559.6	90.8	221.2	2,357.9	10.9	3,461.8	1,329.8	4,791.6
1975	1,154.9	963.0	995.8	75.7	96.2	2,695.2	307.5	342.6	4,513.0	14.4	6,645.3	3,060.5	9,705.8
1980	1,214.6	2,478.9	2,588.9	162.7	360.1	5,507.0	308.9	802.5	9,730.1	52.2	13,475.7	5,096.8	18,572.5
1985	704.2	3,436.8	2,534.8	276.2	334.6	4,827.1	168.1	891.8	9,032.6	57.2	13,230.9	7,202.9	20,433.8
1990	687.0	3,284.5	2,592.4	263.8	380.7	5,277.2	222.5	844.9	9,581.4	61.5	13,614.4	8,722.9	22,337.3
1995	680.7	3,713.1	2,415.3	227.6	269.9	5,685.0	135.4	906.6	9,639.8	66.6	14,100.2	9,923.4	24,023.6
2000	462.9	4,450.2	3,953.0	393.8	734.5	7,441.1	154.2	1,137.7	13,814.3	62.3	18,789.7	10,158.8	28,948.6
2005	734.3	7,220.9	6,733.3	844.8	1,205.6	11,715.4	285.8	1,441.4	22,226.3	106.7	30,288.3	12,118.5	42,406.8
2006	773.4	7,351.1	7,651.4	1,032.9	1,359.5	13,301.2	290.0	1,722.9	25,357.9	106.4	33,589.0	12,560.4	46,149.4
2007	795.6	7,131.2	8,061.7	1,204.2	1,387.6	14,469.5	255.2	1,757.7	27,135.9	117.5	35,180.2	13,618.7	48,798.9
2008	936.6	7,908.5	11,530.0	1,693.8	1,888.5	16,418.4	362.2	1,816.5	33,709.3	150.9	42,705.3	13,880.5	56,585.9
2009	684.8	6,476.2	R 6,028.0	1,413.4	890.3	12,185.8	179.5	1,728.2	R 22,425.1	145.8	R 29,732.0	13,643.6	R 43,375.6
2010	919.3	5,915.7	R 7,581.4	1,658.6	1,120.2	14,424.0	114.5	R 1,562.5	R 26,461.2	184.3	R 33,480.6	15,222.4	R 48,702.9
2011	1,067.4	5,952.0	R 9,867.3	2,012.2	1,556.3	17,871.8	125.2	R 1,637.3	R 33,070.1	227.0	R 40,316.4	15,382.9	R 55,699.3
2012	1,089.2	5,336.3	R 10,283.2	1,315.9	1,574.0	18,359.0	152.5	R 1,554.4	R 33,238.9	215.3	R 39,879.7	14,218.8	R 54,098.5
2013	1,123.7	R 6,059.7	R 10,265.5	1,454.8	1,547.2	17,947.3	117.4	R 1,662.0	R 32,994.3	268.4	R 40,446.2	14,242.2	R 54,688.3
2014	965.8	R 6,864.1	R 10,735.9	1,637.8	1,450.1	17,071.2	63.9	R 1,865.6	R 32,824.5	R 268.6	R 40,923.0	14,984.4	R 55,907.4
2015	800.4	R 5,737.9	R 7,283.2	1,055.4	830.7	12,318.2	21.9	R 1,692.9	R 23,202.5	R 237.7	R 29,978.5	14,979.7	R 44,958.2
2016	550.7	R 4,813.6	R 5,349.4	974.9	667.6	11,211.1	23.4	R 1,375.0	R 19,601.3	R 187.0	R 25,152.5	14,702.2	R 39,854.6
2017	632.9	5,547.2	R 6,293.9	1,193.8	874.4	12,899.2	15.6	1,406.5	R 22,683.4	R 195.8	R 29,059.3	14,376.2	R 43,435.5
2018	715.1	R 6,273.1	R 7,985.4	1,414.0	1,182.7	13,727.4	18.5	1,538.0	R 25,866.0	R 233.7	R 33,087.9	14,937.3	R 48,025.3
2019	776.9	R 6,279.5	R 7,448.3	1,164.9	1,139.5	13,001.5	22.7	R 1,557.3	R 24,334.2	R 217.0	R 31,607.6	14,203.0	R 45,810.6
2020	461.1	R 5,520.2	R 5,698.6	938.7	404.8	9,586.0	10.2	R 1,264.0	R 17,902.4	R 157.3	R 24,040.9	13,516.5	R 37,557.3
2021	607.9	R 6,166.0	R 7,744.2	1,538.6	R 752.6	13,888.7	22.4	R 1,514.0	R 25,460.5	R 187.4	R 32,421.8	14,250.4	R 46,672.2
2022	1,000.6	R 8,329.1	R 12,726.5	1,839.9	R 1,516.7	17,902.2	37.6	R 2,127.9	R 36,150.8	R 312.2	R 45,792.7	17,161.6	R 62,954.3
2023	1,007.9	7,947.0	10,546.9	1,647.9	1,334.6	15,880.8	25.5	1,811.3	31,246.9	263.5	40,465.3	17,401.3	57,866.6

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel and renewable diesel product supplied.
^c Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
^d 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." There is a discontinuity in expenditures time series between 2009 and 2010 because of consumption data source and methodology changes, see technical notes.
^e Beginning in 1993, includes fuel ethanol blended into motor gasoline.
^f Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See technical notes, Section 4.
^g Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
^h 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.
ⁱ There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.
^j For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
^k 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: 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 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. <https://www.eia.gov/state/seds/>

Table ET3. Residential sector energy price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Primary energy							Electricity ^g	Total energy ^f	
	Coal ^a	Natural gas ^b	Petroleum			Biomass	Total ^f			
			Distillate fuel oil ^c	HGL ^d	Kerosene					Wood ^e
Prices in dollars per million Btu										
1970	1.03	1.20	1.35	2.43	1.57	1.40	0.40	1.25	7.15	1.97
1975	2.57	1.89	2.81	4.42	3.12	2.88	0.79	2.29	12.80	3.96
1980	2.70	3.73	6.95	9.00	8.05	7.09	2.02	4.88	17.42	7.12
1985	2.83	6.50	7.82	11.63	8.62	8.07	2.29	6.89	25.05	10.57
1990	2.96	6.36	7.84	12.94	7.97	8.17	2.83	6.76	27.03	11.69
1995	2.55	6.92	6.32	12.74	5.85	6.74	2.30	6.67	28.49	12.21
2000	2.51	8.20	9.36	16.35	9.34	10.04	3.50	8.73	27.94	13.74
2005	3.33	13.66	15.11	21.45	14.54	15.74	5.48	14.16	28.89	18.73
2006	3.59	15.84	17.54	24.31	17.83	18.39	6.31	16.46	30.33	21.16
2007	3.52	14.12	19.30	26.51	19.28	20.33	6.97	15.92	32.09	21.30
2008	—	15.61	24.32	31.04	26.78	25.12	8.59	19.38	33.27	23.59
2009	—	14.18	17.96	27.48	21.62	20.10	6.45	15.57	34.14	21.84
2010	—	12.44	21.43	30.10	24.30	23.17	7.61	15.54	37.22	23.02
2011	—	11.99	26.14	32.37	28.72	27.39	9.15	16.43	38.86	24.30
2012	—	11.48	29.86	30.69	30.15	30.02	10.19	16.77	37.37	24.39
2013	—	11.07	28.82	30.10	30.15	29.08	9.98	R 16.00	37.48	23.30
2014	—	11.20	28.12	32.75	30.23	28.98	9.73	R 16.20	39.03	R 23.45
2015	—	10.53	19.65	27.95	16.97	21.04	6.71	13.30	39.98	22.14
2016	—	9.76	16.89	27.76	13.53	18.84	5.73	R 12.05	40.64	R 22.20
2017	—	10.93	18.79	30.68	16.92	R 21.10	6.41	13.43	41.70	R 23.18
2018	—	10.82	20.69	30.74	25.20	22.66	7.09	13.88	40.71	22.66
2019	—	11.26	20.61	26.10	24.50	22.08	6.82	13.77	40.46	22.89
2020	—	11.04	17.60	22.83	22.52	18.89	5.64	R 12.69	39.81	R 22.66
2021	—	11.56	20.71	27.51	22.38	R 22.07	6.77	R 14.22	40.33	R 23.50
2022	—	14.39	32.88	30.00	40.57	32.41	R 10.47	R 19.01	46.73	R 28.58
2023	—	14.89	29.41	28.69	37.02	29.42	9.58	18.75	53.05	30.93
Expenditures in million dollars										
1970	49.1	367.4	245.1	15.0	29.9	290.1	2.4	709.0	561.5	1,270.4
1975	32.4	527.3	517.2	30.6	35.8	583.5	4.8	1,148.0	1,208.5	2,356.5
1980	20.6	1,098.2	1,127.1	46.9	107.8	1,281.8	31.3	2,431.9	1,888.1	4,320.1
1985	18.8	1,644.9	1,101.5	87.6	139.5	1,328.5	32.9	3,025.2	2,793.4	5,818.6
1990	19.4	1,586.7	923.0	107.4	62.2	1,092.6	44.5	2,743.3	3,519.4	6,267.7
1995	9.8	1,877.1	746.8	128.9	68.5	944.1	32.7	2,863.7	4,160.6	7,024.3
2000	5.4	2,231.1	1,139.5	240.5	147.7	1,527.7	28.8	3,792.9	4,290.9	8,083.9
2005	4.2	3,482.9	1,748.5	324.4	150.2	2,223.1	51.2	5,761.4	5,289.4	11,050.8
2006	5.1	3,385.6	1,720.2	363.8	143.5	2,227.5	52.3	5,670.6	5,359.0	11,029.6
2007	6.3	3,390.9	1,913.7	459.1	103.4	2,476.1	63.9	5,937.2	5,976.9	11,914.1
2008	—	3,718.5	3,729.0	617.7	74.8	4,421.5	88.1	8,228.0	6,137.0	14,365.0
2009	—	3,356.5	1,380.1	592.9	84.1	2,057.1	94.3	5,507.9	6,162.2	11,670.1
2010	—	2,885.0	1,830.9	626.5	102.3	2,559.7	119.3	5,564.0	7,017.2	12,581.2
2011	—	2,734.3	2,106.0	632.2	73.9	2,812.1	139.1	5,685.4	7,265.4	12,950.9
2012	—	2,365.8	2,113.4	510.8	32.4	2,656.7	129.4	5,151.8	6,741.6	11,893.5
2013	—	2,696.5	R 2,289.8	562.5	34.7	R 2,887.1	165.4	R 5,749.0	6,938.4	R 12,687.4
2014	—	2,999.2	R 2,565.0	653.5	61.4	R 3,279.9	163.2	R 6,442.3	7,217.8	R 13,660.1
2015	—	2,601.8	R 1,708.5	509.5	22.9	R 2,241.0	141.8	R 4,984.6	7,423.1	R 12,407.7
2016	—	2,193.9	R 1,237.0	469.4	20.5	R 1,726.8	R 98.4	R 4,019.1	7,470.0	R 11,489.1
2017	—	2,493.6	R 1,342.1	542.0	15.6	R 1,899.7	R 108.3	R 4,501.6	7,359.0	R 11,860.6
2018	—	2,843.1	R 1,785.0	638.5	23.4	R 2,446.9	R 152.1	R 5,442.1	7,764.9	R 13,207.0
2019	—	2,768.6	R 1,376.6	620.0	25.9	R 2,022.5	R 138.7	R 4,929.7	7,508.6	R 12,438.4
2020	—	2,540.5	R 1,045.9	425.3	22.5	R 1,493.7	R 88.4	R 4,122.6	7,512.0	R 11,634.6
2021	—	2,719.7	R 1,554.3	517.6	23.7	R 2,095.6	R 109.7	R 4,925.0	7,697.6	R 12,622.6
2022	—	3,546.3	R 2,575.3	562.9	39.8	R 3,178.0	R 213.7	R 6,938.0	8,994.5	R 15,932.5
2023	—	3,191.2	2,164.0	493.2	62.6	2,719.7	166.1	6,077.0	9,472.2	15,549.2

^a Beginning in 2008, consumption data are no longer collected and are assumed to be zero.
^b Includes supplemental gaseous fuels that are commingled with natural gas.
^c Beginning in 2013, includes biodiesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel product supplied.
^d Hydrocarbon gas liquids, assumed to be propane only.
^e Wood and wood-derived fuels.
^f There are no direct fuel costs for geothermal or solar energy.

^g Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
 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 <https://www.eia.gov/state/seds/seds-data-complete.php>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes.
<https://www.eia.gov/state/seds/>

Table ET4. Commercial sector energy price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Primary energy									Electricity ^j	Total energy ^{g,h,i}	
	Coal	Natural gas ^a	Petroleum					Biomass	Total ^{g,h,i}			
			Distillate fuel oil ^b	HGL ^c	Kerosene	Motor gasoline ^d	Residual fuel oil					Wood and waste ^{f,g}
Prices in dollars per million Btu												
1970	0.32	0.93	1.09	1.37	0.74	2.92	0.47	1.13	0.40	0.90	6.71	1.90
1975	1.25	1.67	2.48	2.75	2.52	4.72	2.02	2.57	0.79	1.90	11.88	4.34
1980	1.33	3.49	6.39	5.13	6.01	9.71	4.43	6.06	2.02	3.80	16.63	7.29
1985	1.61	5.99	6.50	8.87	8.62	9.01	4.70	6.52	2.29	5.58	23.28	10.97
1990	1.47	5.77	5.85	10.33	7.97	9.35	3.46	6.18	2.83	5.31	23.99	11.46
1995	1.35	6.06	4.62	10.21	5.85	9.73	2.80	4.88	1.75	5.21	24.66	11.93
2000	1.34	7.46	7.01	12.65	9.34	12.12	4.20	7.67	2.11	6.94	22.80	13.36
2005	2.21	12.53	13.32	17.83	14.54	18.23	7.56	13.48	3.77	11.93	24.90	17.37
2006	2.31	13.77	15.46	19.77	17.83	20.91	8.60	15.96	3.84	13.28	26.22	19.00
2007	2.45	12.30	17.04	21.56	19.28	22.70	9.60	17.48	4.38	12.38	26.98	18.74
2008	4.55	13.75	24.13	26.01	26.78	26.65	12.76	24.06	5.22	15.63	27.51	20.89
2009	4.72	11.38	14.94	20.99	21.62	19.61	9.54	16.10	4.18	11.88	27.98	19.16
2010	4.47	10.10	18.32	24.05	24.30	23.21	12.91	19.65	4.74	11.49	29.60	19.87
2011	5.19	10.02	24.53	27.41	28.72	29.48	18.07	25.35	5.61	12.31	29.39	19.92
2012	6.10	9.81	25.01	21.74	30.15	30.58	18.61	24.21	5.31	11.75	27.66	19.26
2013	5.12	9.63	24.82	21.41	30.15	29.70	17.63	23.93	5.54	11.47	27.11	18.29
2014	4.36	9.64	23.43	22.65	30.23	28.73	14.60	23.31	R 5.21	11.39	28.50	18.58
2015	4.46	8.89	14.13	13.65	16.97	20.81	8.98	16.33	R 4.28	R 10.20	28.13	R 17.70
2016	4.45	7.81	11.02	12.84	13.53	18.81	8.03	R 14.31	R 3.44	8.96	27.02	R 16.82
2017	4.55	8.78	13.63	16.80	16.92	21.48	8.82	R 17.05	R 3.66	10.29	26.31	R 17.08
2018	4.08	9.02	16.92	18.27	25.20	23.52	9.94	19.42	R 4.27	R 10.95	26.20	R 17.06
2019	4.33	9.13	15.77	14.56	24.50	22.19	—	17.78	R 4.23	10.73	25.54	R 16.48
2020	5.04	8.75	10.65	13.78	22.52	19.17	—	R 14.81	R 3.68	9.74	24.90	15.52
2021	4.93	9.23	16.88	21.11	22.38	25.62	11.71	20.88	4.33	11.44	26.11	16.99
2022	5.37	11.81	30.30	22.40	40.57	33.59	16.37	30.02	R 5.17	15.07	31.46	21.02
2023	6.50	12.58	23.15	18.14	37.02	29.88	14.52	24.89	4.89	14.69	33.01	21.41

Expenditures in million dollars												
1970	12.1	95.9	34.4	3.2	1.2	37.6	15.4	91.8	(s)	199.8	307.6	507.5
1975	36.6	169.1	79.4	7.2	2.5	32.5	46.0	167.6	0.1	373.5	754.3	1,127.8
1980	38.2	422.8	218.2	10.1	6.6	16.0	42.4	293.2	0.8	754.9	1,234.2	1,989.2
1985	37.9	714.6	208.7	25.3	17.5	21.2	41.8	314.5	0.8	1,067.9	1,952.9	3,020.7
1990	38.6	754.0	226.4	32.5	6.8	34.4	17.3	317.4	4.9	1,114.9	2,472.0	3,587.0
1995	34.8	902.1	170.3	39.2	17.5	4.4	21.5	252.9	5.9	1,195.7	2,990.0	4,185.7
2000	23.3	1,121.9	224.1	70.5	21.5	9.2	16.7	342.1	6.1	1,493.4	3,343.7	4,837.1
2005	31.9	1,890.4	474.7	97.7	38.0	8.5	29.8	648.6	11.8	2,582.6	3,890.1	6,472.7
2006	33.0	1,863.7	511.6	120.3	42.4	9.9	15.5	699.7	11.4	2,607.8	4,081.0	6,688.8
2007	39.8	1,862.5	484.9	143.8	20.4	10.7	23.5	683.2	13.8	2,599.3	4,374.8	6,974.0
2008	23.8	2,066.4	858.5	167.9	8.8	12.4	19.3	1,067.0	17.2	3,174.3	4,443.8	7,618.1
2009	23.7	1,704.6	359.1	143.8	11.0	9.1	14.7	537.7	15.6	2,281.6	4,430.8	6,712.4
2010	21.1	1,483.6	432.7	164.8	18.4	10.6	7.4	633.9	18.4	2,157.0	4,783.8	6,940.8
2011	22.5	1,471.0	516.1	219.9	5.7	13.4	4.6	759.7	20.9	2,274.2	4,365.4	6,639.6
2012	20.0	1,299.8	427.2	140.2	2.0	13.8	3.0	586.2	20.7	1,926.8	4,050.4	5,977.2
2013	15.7	1,507.5	R 460.6	162.9	1.7	13.8	1.2	R 640.1	R 22.6	R 2,186.1	3,990.9	R 6,176.9
2014	13.4	1,617.1	R 465.6	186.4	6.4	12.8	1.2	R 672.4	R 23.4	2,326.3	4,215.6	6,541.9
2015	8.7	1,417.5	R 265.7	106.9	2.4	291.1	0.5	R 666.6	R 22.5	R 2,115.3	4,199.2	R 6,314.5
2016	4.6	1,163.2	R 168.8	104.4	3.0	265.0	1.0	R 542.2	R 16.9	R 1,726.9	4,013.9	R 6,740.8
2017	2.9	1,336.6	R 244.7	121.4	2.4	307.3	(s)	R 675.8	R 18.6	R 2,033.9	3,826.4	R 5,860.3
2018	1.5	1,547.2	R 344.6	153.7	4.5	342.1	(s)	R 844.9	R 21.3	R 2,414.9	3,864.3	R 6,279.2
2019	1.3	1,533.8	R 315.1	116.8	5.3	324.8	—	R 762.0	R 19.8	R 2,317.0	3,498.0	R 5,815.0
2020	1.1	1,348.5	R 146.3	109.7	4.0	282.6	—	R 542.6	R 19.5	R 1,911.8	3,006.4	R 4,918.2
2021	0.8	1,480.9	R 307.5	176.6	3.7	381.9	(s)	R 869.8	R 22.5	R 2,374.1	3,295.2	R 5,669.2
2022	0.4	2,046.3	R 568.5	181.4	6.2	514.9	(s)	R 1,271.1	R 35.9	R 3,353.7	3,995.0	R 7,348.7
2023	0.3	2,058.6	407.9	131.9	9.8	459.0	(s)	1,008.7	33.7	3,101.2	4,033.0	7,134.3

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Beginning in 2013, includes biodiesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel product supplied.
^c Hydrocarbon gas liquids, assumed to be propane only.
^d 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.
^e Includes small amounts of petroleum coke not shown separately.
^f Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
^g 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.
^h There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.

ⁱ For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
^j 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 commercial sector includes commercial combined-heat-and-power (CHP) and commercial 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. <https://www.eia.gov/state/seds/>

Table ET5. Industrial sector energy price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Primary energy												Electricity ⁱ	Total energy ^{f,g,h}
	Coal			Natural gas ^a	Petroleum					Biomass	Total ^{f,g,h}			
	Coking coal	Steam coal	Total		Distillate fuel oil	HGL ^b	Motor gasoline ^c	Residual fuel oil	Other ^d	Total		Wood and waste ^{e,f}		
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	R 19.09	R 21.18	2.53	R 10.04	22.44	R 12.75
2011	6.60	3.60	5.81	9.49	24.53	36.58	29.48	18.07	R 22.34	R 26.52	2.50	R 12.26	22.66	R 14.71
2012	6.32	3.69	5.77	9.18	25.63	28.59	30.58	18.61	R 22.67	R 25.34	2.41	R 11.65	21.18	R 13.86
2013	5.47	3.44	5.11	8.69	24.57	31.47	29.70	17.63	R 23.13	R 25.51	2.34	R 10.92	20.42	R 12.90
2014	4.47	3.43	4.30	9.47	22.72	32.77	28.73	14.60	R 22.66	R 24.60	2.78	R 10.99	21.72	R 13.14
2015	3.92	3.34	3.82	8.19	14.59	18.20	20.81	8.98	R 19.11	R 17.49	2.65	R 8.76	21.09	R 11.33
2016	3.49	3.12	3.42	7.10	11.62	16.30	18.81	8.03	R 15.68	R 14.81	2.46	R 7.69	20.29	R 10.56
2017	3.83	3.28	3.77	8.03	15.03	21.59	21.48	8.82	16.36	17.11	2.36	8.74	19.84	11.22
2018	4.11	3.46	4.06	8.36	16.14	25.23	23.52	9.94	19.69	19.72	2.24	9.47	20.04	11.84
2019	4.63	3.52	4.55	8.20	14.95	17.71	22.19	9.97	R 19.77	R 17.96	2.37	R 9.19	18.78	R 11.37
2020	3.96	3.36	3.90	7.68	10.67	16.00	19.17	7.86	R 18.72	R 15.88	2.00	R 8.46	18.05	10.94
2021	3.70	3.56	3.69	8.19	14.67	32.49	25.62	11.71	20.85	21.34	2.33	9.73	19.16	11.91
2022	6.07	4.51	5.96	10.76	27.92	14.51	33.59	16.37	R 27.03	22.53	R 2.13	R 12.57	24.07	R 15.01
2023	6.53	5.68	6.48	11.35	23.38	8.41	29.88	14.52	24.28	15.97	2.24	11.42	22.71	13.76

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	R 1,105.8	R 2,878.7	46.7	R 5,369.6	3,351.2	R 8,720.8
2011	875.5	169.3	1,044.8	1,745.6	995.5	1,157.2	185.2	78.0	R 1,171.5	R 3,587.4	67.0	R 6,444.9	3,677.0	R 10,121.9
2012	927.2	142.0	1,069.1	1,668.3	1,164.1	662.6	320.9	23.2	R 1,139.9	R 3,310.6	65.2	R 6,113.3	3,356.1	R 9,469.4
2013	976.9	131.1	1,108.0	1,853.2	1,232.5	726.7	320.6	14.1	R 1,250.5	R 3,544.4	80.4	R 6,586.0	3,249.4	R 9,835.4
2014	826.9	125.5	952.4	2,244.8	1,299.6	794.4	249.3	6.9	R 1,416.9	R 3,767.1	82.0	R 7,046.3	3,487.8	R 10,534.0
2015	674.7	116.9	791.6	1,714.7	744.5	434.0	157.2	4.0	R 1,284.1	R 2,623.8	73.5	R 5,203.6	3,296.7	R 8,500.3
2016	456.5	89.6	546.1	1,452.7	427.2	395.8	141.2	6.2	R 1,011.9	R 1,982.3	71.7	R 4,052.7	3,158.2	R 7,210.9
2017	574.0	56.0	630.0	1,705.3	628.7	514.0	163.2	4.9	1,067.7	2,378.6	68.8	4,782.7	3,136.7	7,919.4
2018	666.8	46.8	713.6	1,868.2	699.1	610.9	181.1	4.7	1,179.6	2,675.4	60.3	5,317.5	3,253.5	8,571.0
2019	733.2	42.3	775.5	1,963.1	655.2	421.2	170.5	5.5	R 1,194.9	R 2,447.2	58.5	R 5,244.4	3,151.4	R 8,395.8
2020	418.6	41.4	460.0	1,618.0	342.7	400.6	148.5	5.2	R 949.5	R 1,846.5	49.4	R 3,973.9	2,961.6	R 6,935.4
2021	565.7	41.3	607.0	1,950.8	629.8	834.5	195.9	6.2	R 1,153.5	R 2,819.9	55.2	R 5,432.9	3,229.7	R 8,662.7
2022	949.8	50.3	1,000.2	2,705.6	1,212.1	1,079.6	269.5	8.9	R 1,657.9	R 4,228.0	62.6	R 7,996.4	4,130.7	R 12,127.1
2023	953.0	54.5	1,007.5	2,679.3	990.6	1,011.0	241.3	5.9	1,407.1	3,655.8	63.8	7,406.4	3,851.7	11,258.2

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
^c 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.
^d Includes asphalt and road oil, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See technical notes, Section 4.
^e Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
^f 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.
^g There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.

^h For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
ⁱ 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. <https://www.eia.gov/state/seds/>

Table ET6. Transportation sector energy price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Primary energy										Electricity ^g	Total energy ^f	
	Coal	Natural gas ^a	Petroleum							Total ^f			
			Aviation gasoline	Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Lubricants	Motor gasoline ^e	Residual fuel oil				
Prices in dollars per million Btu													
1970	0.32	—	2.17	1.35	1.37	0.72	5.08	2.92	0.42	2.48	2.47	3.66	2.48
1975	1.25	—	3.45	2.64	2.75	2.01	7.48	4.72	1.80	4.15	4.15	8.41	4.16
1980	—	—	9.02	7.05	5.13	6.27	14.36	9.71	3.76	8.85	8.85	15.14	8.86
1985	—	—	9.99	8.35	10.11	5.84	18.18	9.01	4.14	8.66	8.66	21.08	8.68
1990	—	4.69	9.32	8.79	12.22	5.59	20.61	9.35	2.82	8.77	8.77	21.63	8.79
1995	—	6.99	8.36	8.07	12.15	3.87	21.75	9.73	2.60	8.78	8.78	22.20	8.80
2000	—	4.73	10.87	11.84	15.76	6.81	23.20	12.12	3.45	11.29	11.29	19.41	11.30
2005	—	9.56	18.56	18.01	19.44	12.64	35.22	18.23	6.73	17.42	17.42	21.18	17.43
2006	—	13.03	22.31	20.11	21.73	14.56	43.88	20.91	7.68	19.93	19.92	21.85	19.93
2007	—	10.42	23.70	21.21	23.83	15.79	47.16	22.70	7.74	21.57	21.57	22.64	21.57
2008	—	7.99	27.23	28.51	27.56	23.07	55.12	26.65	11.99	26.59	26.58	22.17	26.57
2009	—	4.95	20.32	18.96	22.09	12.59	56.07	19.61	8.20	18.97	18.96	22.78	18.98
2010	—	3.63	25.19	22.59	25.93	16.10	58.80	23.21	11.08	22.67	22.66	23.17	22.66
2011	—	3.27	31.64	28.86	29.19	22.71	69.54	29.48	15.13	29.01	29.00	26.17	28.99
2012	—	7.62	33.04	29.80	23.60	23.18	72.11	30.58	16.84	29.94	29.93	23.65	29.91
2013	—	R 7.47	32.71	29.17	23.27	22.10	69.42	29.70	16.17	29.11	29.10	22.88	29.08
2014	—	R 7.39	33.16	29.00	25.30	20.90	69.44	28.73	15.63	28.37	28.36	22.42	28.34
2015	—	R 7.08	24.86	21.29	17.19	11.99	67.28	20.81	8.41	20.49	20.48	22.92	20.49
2016	—	R 7.21	21.62	17.74	16.38	9.49	65.78	18.81	6.11	18.03	18.03	22.38	18.04
2017	—	R 7.50	24.13	20.55	21.08	12.04	67.25	21.48	8.64	20.70	20.67	20.98	20.67
2018	—	R 7.82	27.04	24.46	22.38	15.86	72.37	23.52	10.80	23.32	R 23.29	22.79	23.28
2019	—	R 7.99	25.57	23.78	18.68	14.64	74.92	22.19	10.17	22.14	22.11	21.28	22.11
2020	—	R 7.96	22.34	20.44	17.62	8.97	75.34	19.17	7.41	19.17	19.14	25.15	19.15
2021	—	R 8.25	28.86	24.95	24.89	14.28	81.25	25.62	11.20	24.94	24.90	20.06	24.89
2022	—	R 9.65	36.02	38.93	25.44	26.76	97.37	33.59	19.41	34.86	34.76	22.89	34.73
2023	—	10.43	32.62	33.02	21.23	21.27	105.48	29.88	15.98	30.30	30.26	29.92	30.26

Expenditures in million dollars													
1970	0.4	—	7.3	99.5	0.7	36.9	40.9	1,503.8	14.6	1,703.6	1,704.0	2.3	1,706.3
1975	0.1	—	7.4	254.4	1.7	96.2	49.7	2,635.5	65.5	3,110.4	3,110.5	5.6	3,116.1
1980	—	—	15.3	885.1	2.9	360.1	114.3	5,461.1	113.4	6,952.3	6,952.3	9.6	6,961.9
1985	—	—	10.5	989.1	9.7	334.6	131.7	4,745.5	55.7	6,276.8	6,276.8	26.3	6,303.1
1990	—	(s)	6.8	1,187.3	7.4	380.7	168.0	5,184.8	99.1	7,034.0	7,034.0	29.3	7,063.3
1995	—	0.8	5.3	1,372.8	8.8	269.9	169.1	5,633.2	77.9	7,537.1	7,537.9	28.7	7,566.6
2000	—	1.8	8.5	2,341.2	4.1	734.5	192.7	7,387.6	102.1	10,770.5	10,772.3	26.5	10,798.9
2005	—	3.8	9.4	4,064.8	14.7	1,205.6	246.8	11,532.8	194.8	17,268.8	17,272.6	63.5	17,336.2
2006	—	4.4	24.5	4,748.6	14.9	1,359.5	299.5	13,062.4	202.1	19,711.6	19,716.0	60.9	19,776.8
2007	—	3.3	11.5	4,842.6	11.9	1,387.6	332.4	14,278.9	166.3	21,031.2	21,034.6	67.6	21,102.2
2008	—	2.4	13.7	5,673.2	30.6	1,888.5	360.7	16,292.1	266.5	24,525.3	24,527.7	65.3	24,593.0
2009	—	1.4	7.1	R 3,809.7	17.8	890.3	329.9	12,092.9	123.6	R 17,271.2	R 17,272.6	68.3	R 17,340.9
2010	—	1.1	13.5	R 4,702.1	2.5	1,120.2	322.5	14,172.6	55.6	R 20,389.0	R 20,390.1	70.1	R 20,460.2
2011	—	1.0	18.5	R 6,249.7	2.8	1,556.3	367.8	17,673.2	42.6	R 25,910.9	R 25,911.9	75.0	R 25,986.9
2012	—	2.4	20.3	R 6,578.4	2.4	1,574.0	359.9	18,024.3	126.2	R 26,685.4	R 26,687.8	70.6	R 26,758.4
2013	—	R 2.4	17.5	R 6,282.6	2.8	1,547.2	357.5	17,612.9	102.2	R 25,922.7	R 25,925.1	63.5	R 25,988.6
2014	—	R 3.1	16.3	R 6,405.8	3.5	1,450.1	364.6	16,809.0	55.9	R 25,105.1	R 25,108.1	63.3	R 25,171.4
2015	—	R 4.0	12.8	R 4,564.6	5.0	830.7	370.5	11,869.9	17.4	R 17,671.1	R 17,675.1	60.7	R 17,735.7
2016	—	R 3.7	7.9	R 3,516.4	5.3	667.6	331.7	10,804.9	16.2	R 15,350.0	R 15,353.7	60.1	R 15,413.8
2017	—	11.8	8.9	R 4,078.4	16.4	874.4	311.9	12,428.7	10.7	R 17,729.3	R 17,741.2	54.0	R 17,795.2
2018	—	R 14.6	10.0	R 5,156.7	10.9	R 1,182.7	320.5	13,204.3	13.7	R 19,898.8	R 19,913.5	54.7	R 19,968.2
2019	—	R 13.9	10.9	R 5,101.4	6.9	R 1,139.5	R 320.4	12,506.3	17.2	R 19,102.5	R 19,116.4	44.9	R 19,161.4
2020	—	R 13.2	7.6	R 4,163.6	3.1	404.8	R 280.5	9,154.9	5.0	R 14,019.4	R 14,032.6	36.5	R 14,069.1
2021	—	R 14.6	11.1	R 5,252.6	9.9	R 752.6	R 321.9	13,310.8	16.1	R 19,675.1	R 19,689.8	27.9	R 19,717.7
2022	—	R 31.0	14.4	R 8,370.5	16.0	R 1,516.7	R 409.5	17,117.8	28.6	R 27,473.7	R 27,504.6	41.4	R 27,546.0
2023	—	17.9	12.4	6,984.5	11.8	1,334.6	319.4	15,180.5	19.6	23,862.7	23,880.6	44.3	23,924.9

^a Transportation use of natural gas as vehicle fuel only.
^b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel and renewable diesel product supplied.
^c Hydrocarbon gas liquids, assumed to be propane only.
^d 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." There is a discontinuity in expenditures time series between 2009 and 2010 because of consumption data source and methodology changes, see technical notes.
^e Beginning in 1993, includes fuel ethanol blended into motor gasoline.
^f For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

^g Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers. Sales to public railroads and railway systems only. Excludes electric vehicles.
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 <https://www.eia.gov/state/seds/seds-data-complete.php>.
Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes.
<https://www.eia.gov/state/seds/>

Table ET7. Electric power sector price and expenditure estimates, selected years, 1970-2023, Pennsylvania

Year	Coal	Natural gas ^a	Petroleum				Nuclear fuel	Biomass	Electricity imports ^c	Total energy ^d
			Distillate fuel oil	Petroleum coke	Residual fuel oil	Total		Wood and waste ^b		
Prices in dollars per million Btu										
1970	0.31	0.41	0.49	—	0.47	0.47	0.21	—	—	0.34
1975	0.96	1.47	2.27	—	2.07	2.12	0.25	—	—	0.93
1980	1.33	3.60	5.85	0.72	4.52	4.60	0.42	—	—	1.55
1985	1.56	5.08	5.85	1.27	4.32	4.30	0.92	—	—	1.61
1990	1.52	2.95	5.48	0.90	3.31	3.52	0.83	0.46	—	1.35
1995	1.36	1.98	3.80	0.55	2.55	2.43	0.56	0.70	6.21	1.09
2000	1.15	3.71	6.57	0.74	3.58	4.57	0.48	0.67	—	1.00
2005	1.58	9.94	12.32	1.21	6.71	7.16	0.37	2.28	16.53	1.61
2006	1.71	7.50	13.54	1.21	7.47	9.00	0.40	2.32	17.32	1.56
2007	1.74	7.77	12.77	—	7.38	9.20	0.44	2.42	18.25	1.73
2008	2.09	10.12	20.30	2.01	12.27	15.22	0.47	2.66	18.28	2.10
2009	2.29	4.47	12.15	1.72	8.10	9.06	0.57	2.20	12.10	1.89
2010	2.40	5.13	16.26	—	12.26	14.75	0.65	2.40	13.31	2.12
2011	2.55	4.72	22.44	—	18.24	21.30	0.69	2.44	11.53	2.23
2012	2.43	3.05	23.56	—	20.68	23.02	0.75	2.21	9.51	1.97
2013	2.47	4.00	24.43	—	19.32	23.64	0.82	2.26	11.49	2.16
2014	2.51	4.84	23.67	—	17.75	22.49	0.78	2.73	13.31	2.36
2015	2.28	2.42	14.70	—	—	14.70	0.71	2.62	10.54	1.70
2016	1.90	1.87	10.23	1.23	—	10.21	0.68	2.54	8.74	1.39
2017	1.88	2.56	13.96	—	—	13.96	0.74	2.40	9.18	1.59
2018	2.09	3.06	15.58	—	12.46	15.56	0.73	2.22	10.74	1.81
2019	1.88	2.35	14.06	—	11.95	14.02	0.68	2.33	—	1.54
2020	1.73	1.63	9.49	—	8.81	9.46	0.64	1.80	—	1.24
2021	2.88	3.31	15.06	—	13.27	15.04	0.63	2.39	—	2.19
2022	3.20	^R 6.10	25.10	—	22.94	25.01	0.63	2.69	—	^R 3.54
2023	2.31	2.07	19.74	—	18.98	19.70	0.64	2.93	—	1.52
Expenditures in million dollars										
1970	213.6	4.0	11.3	—	66.6	77.8	1.1	—	—	296.5
1975	822.7	1.8	45.2	—	133.8	178.9	44.3	—	—	1,047.7
1980	1,364.4	10.5	76.2	1.4	489.2	566.8	55.4	—	—	1,997.2
1985	1,592.7	8.0	48.5	6.0	315.7	370.2	257.5	—	—	2,228.4
1990	1,605.3	41.2	68.3	5.4	138.4	212.1	506.8	4.1	—	2,369.5
1995	1,443.8	80.5	31.0	4.3	77.4	112.7	387.6	19.5	0.5	2,044.5
2000	1,391.0	78.9	99.1	0.1	106.8	205.9	371.0	21.0	—	2,068.0
2005	1,939.4	830.6	91.2	3.7	297.8	392.7	298.5	57.0	1.7	3,519.9
2006	2,130.6	783.3	51.2	1.2	44.6	97.0	316.0	59.0	1.9	3,387.8
2007	2,164.0	1,153.1	61.9	—	70.3	132.2	356.5	64.0	9.8	3,879.6
2008	2,484.6	1,475.0	93.2	1.6	54.1	148.9	382.3	76.1	55.4	4,622.3
2009	2,447.8	968.5	41.6	1.4	39.5	82.4	457.6	62.9	25.5	4,044.6
2010	2,687.9	1,294.1	69.0	—	31.5	100.5	528.1	72.3	34.9	4,717.7
2011	2,618.0	1,485.4	86.9	—	26.4	113.4	549.2	70.0	26.2	4,862.2
2012	2,193.4	1,240.4	68.1	—	13.8	82.0	594.4	61.0	44.2	4,215.3
2013	2,234.9	1,511.0	80.5	—	11.7	92.2	672.7	62.1	44.8	4,617.7
2014	2,040.6	1,955.8	136.8	—	25.4	162.2	639.3	73.6	26.2	4,897.7
2015	1,525.2	1,103.7	88.3	—	—	88.3	601.7	71.4	20.4	3,410.7
2016	1,089.8	972.2	34.5	(s)	—	34.5	588.2	69.3	9.4	2,763.3
2017	942.9	1,395.3	41.7	—	—	41.7	647.7	65.9	1.0	3,094.4
2018	976.6	1,707.1	121.3	—	0.7	122.1	635.1	59.3	2.1	3,502.3
2019	749.9	1,634.2	30.6	—	0.5	31.1	588.4	56.0	—	3,059.7
2020	442.0	1,401.1	9.1	—	0.5	9.6	513.3	40.0	—	2,406.0
2021	923.5	2,923.2	20.9	—	0.3	21.2	502.1	47.7	—	4,417.7
2022	855.5	^R 5,579.5	80.1	—	3.4	83.5	503.0	44.6	—	^R 7,066.0
2023	352.1	2,032.1	13.6	—	0.7	14.4	505.1	48.4	—	2,952.0

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Wood, wood-derived fuels, and biomass waste. Beginning in 2006, includes small amount of other biomass liquids that are biodiesel. Prior to 2001, includes non-biomass waste.
^c Electricity imported from Canada and Mexico.
^d There are no direct fuel costs for hydroelectric, geothermal, solar, or wind 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 consists of 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 <https://www.eia.gov/state/seds/seds-data-complete.php>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes.
<https://www.eia.gov/state/seds/>