

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													
	Coking coal	Steam coal	Total		Distillate fuel oil b	HGL c	Jet fuel d	Motor gasoline e	Residual fuel oil	Other f	Total							
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	7,824.6	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	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/>