

5 New York State Energy Expenditures

This section presents the estimated costs of net energy consumed by sector and fuel type in nominal and constant 2021 dollars for the following selected years: 2007, 2012, and 2017 through 2021.

Estimated costs were derived by multiplying quantities of fuels consumed in TBtu by their respective prices. Out-of-State energy expenditure estimates by fuel type are provided for 2007 through 2021 in both nominal and constant 2021 dollars.

5.1 Key Observations about 2021 New York State Energy Expenditures Data

- Cumulative heating degree-days were 0.5% lower in 2021 compared to 2020.
- In nominal dollars, the State's 2021 estimated energy bill of \$57.7 billion increased 23.9% from 2020. Additionally:
 - 9.8% less than the \$63.9 billion spent in 2007.
 - 1.2% greater than the \$57.0 billion spent in 2020 (pre-pandemic).
- In constant 2021 dollars, the State's estimated energy bill increased \$8.9 billion (18.3%) from 2020. This reflects a \$25.9 billion (31.0%) and \$2.7 billion (4.5%) decrease of the State's energy bills compared to 2007 and 2019, respectively.
- State residents spent \$19.3 billion for household energy, which was a 1.1% increase from the 2020 level in nominal dollars.
- The total commercial customer energy bill was \$14.7 billion, which was 16.7% greater than 2020 in nominal dollars.
- Industrial customers paid \$2.1 billion for energy, which was a 21.5% increase from 2020 levels in nominal dollars.
- The annual energy bill for transporting people and goods was \$21.6 billion, a 44.4% increase from 2020 levels in nominal dollars.
- From 2020 to 2021 statewide expenditures increased 46.4% for petroleum, 14.5% for natural gas, and 9.1% for electricity in nominal dollars.
- In nominal dollars, the 2021 out-of-State estimated energy bill of \$22.3 billion increased 28.4% from 2020, and the estimate is 42.9% less than the \$39.1 billion spent in 2007.
- In constant 2021 dollars, the out-of-State estimated energy bill increased \$4.1 billion (22.6%) from 2020 and was \$28.8 billion (4.9%) less than in 2007.

**New York State
Energy Expenditure Estimates
by Fuel Type and Sector
in Nominal Dollars
2007–2021**

Figure 5-1.

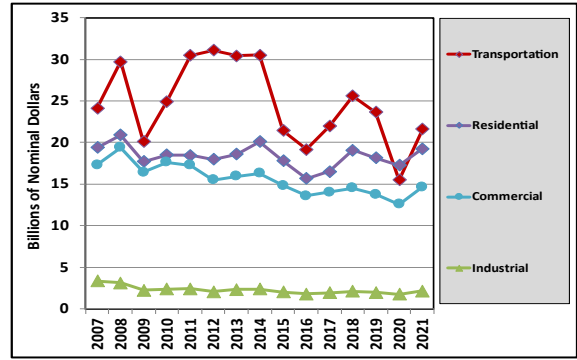


Table 5-1. (In Million Dollars)

	2007	2012	2017	2018	2019	2020	2021
Residential							
Coal	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Petroleum	\$4,165.1	\$4,225.1	\$2,279.7	\$3,186.7	\$2,956.1	\$1,938.2	\$2,769.5
Distillate	\$3,515.2	\$3,633.0	\$1,540.5	\$2,185.7	\$2,034.7	\$1,223.8	\$1,900.8
Kerosene	\$160.4	\$61.4	\$37.8	\$50.0	\$73.1	\$45.5	\$57.2
LPG	\$489.5	\$530.7	\$701.4	\$951.0	\$848.3	\$669.0	\$811.5
Natural Gas	\$6,295.4	\$4,637.7	\$5,207.7	\$6,009.3	\$5,974.4	\$5,593.3	\$6,139.0
Electricity	\$8,590.1	\$8,929.9	\$8,848.8	\$9,659.0	\$8,995.4	\$9,596.2	\$10,161.5
Wood	\$344.1	\$171.3	\$183.4	\$246.9	\$242.3	\$159.0	\$202.6
Total	\$19,396.2	\$17,964.0	\$16,519.6	\$19,101.9	\$18,168.2	\$17,286.6	\$19,272.6
Commercial							
Coal	\$8.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Petroleum	\$2,121.6	\$1,906.6	\$770.2	\$960.2	\$896.2	\$528.1	\$1,063.7
Distillate	\$1,449.7	\$1,279.9	\$624.0	\$798.3	\$758.7	\$393.6	\$829.8
Residual	\$538.5	\$489.0	\$14.0	\$10.1	\$7.2	\$4.3	\$13.6
Kerosene	\$29.8	\$10.0	\$2.9	\$5.5	\$9.4	\$4.4	\$5.5
LPG	\$103.7	\$127.6	\$129.3	\$146.3	\$120.8	\$125.7	\$214.9
Natural Gas	\$3,368.1	\$2,120.0	\$2,130.7	\$2,431.6	\$2,325.7	\$1,988.7	\$2,354.3
Electricity	\$11,830.5	\$11,446.1	\$11,111.8	\$11,128.9	\$10,555.9	\$10,044.1	\$11,239.0
Total	\$17,328.4	\$15,472.7	\$14,012.6	\$14,520.6	\$13,777.8	\$12,560.9	\$14,657.0
Industrial							
Coal	\$100.6	\$114.3	\$54.2	\$43.6	\$30.4	\$14.8	\$18.0
Petroleum	\$581.1	\$521.6	\$234.3	\$281.6	\$285.0	\$214.3	\$289.7
Distillate	\$363.1	\$359.1	\$161.2	\$194.9	\$215.6	\$140.3	\$169.1
Residual	\$90.2	\$66.7	\$26.4	\$26.2	\$22.5	\$9.3	\$32.1
Kerosene	\$22.0	\$21.0	\$4.7	\$12.6	\$11.6	\$27.3	\$10.2
LPG	\$105.8	\$74.7	\$41.9	\$48.0	\$35.2	\$37.5	\$78.3
Natural Gas	\$890.6	\$515.6	\$598.4	\$717.2	\$696.8	\$605.9	\$753.3
Electricity	\$1,760.7	\$917.5	\$1,055.0	\$1,088.0	\$984.9	\$921.0	\$1,071.4
Total	\$3,332.9	\$2,069.0	\$1,941.9	\$2,130.4	\$1,997.1	\$1,756.0	\$2,132.4
Transportation							
Petroleum	\$23,560.7	\$30,268.3	\$21,320.1	\$24,919.7	\$22,974.6	\$14,908.7	\$20,851.5
Distillate	\$3,481.2	\$4,686.0	\$3,701.7	\$4,699.6	\$4,262.9	\$3,403.7	\$3,993.1
Residual	\$348.6	\$482.9	\$177.3	\$207.0	\$90.0	\$88.2	\$199.6
Motor Gasoline	\$16,126.5	\$19,552.6	\$13,868.7	\$15,477.1	\$14,394.4	\$10,166.6	\$14,245.3
Jet Fuel	\$3,599.1	\$5,542.9	\$3,567.6	\$4,533.0	\$4,224.9	\$1,249.0	\$2,410.2
LPG	\$5.3	\$3.8	\$4.8	\$3.0	\$2.5	\$1.2	\$3.3
Natural Gas	\$209.5	\$450.7	\$314.6	\$302.9	\$320.2	\$280.2	\$452.1
Electricity	\$372.6	\$390.3	\$350.4	\$358.5	\$346.4	\$309.5	\$311.0
Total	\$24,142.7	\$31,109.3	\$21,985.1	\$25,581.2	\$23,641.3	\$15,498.3	\$21,614.6
Total							
Coal	\$110.4	\$114.3	\$54.2	\$43.6	\$30.4	\$14.8	\$18.0
Petroleum	\$30,428.5	\$36,921.5	\$24,604.2	\$29,348.2	\$27,111.9	\$17,589.3	\$24,974.4
Distillate	\$8,809.2	\$9,958.1	\$6,027.4	\$7,878.4	\$7,271.9	\$5,161.4	\$6,892.8
Residual	\$977.3	\$1,038.7	\$217.8	\$243.3	\$119.7	\$101.8	\$245.3
Motor Gasoline	\$16,126.5	\$19,552.6	\$13,868.7	\$15,477.1	\$14,394.4	\$10,166.6	\$14,245.3
Kerosene	\$212.1	\$92.4	\$45.5	\$68.1	\$94.2	\$77.2	\$72.9
Jet Fuel	\$3,599.1	\$5,542.9	\$3,567.6	\$4,533.0	\$4,224.9	\$1,249.0	\$2,410.2
LPG	\$704.3	\$736.8	\$877.4	\$1,148.2	\$1,006.7	\$833.3	\$1,108.0
Natural Gas	\$10,763.6	\$7,724.0	\$8,251.4	\$9,461.1	\$9,317.1	\$8,468.0	\$9,698.7
Electricity	\$22,553.8	\$21,683.8	\$21,366.0	\$22,234.4	\$20,882.6	\$20,870.7	\$22,782.9
Wood	\$344.1	\$171.3	\$183.4	\$246.9	\$242.3	\$159.0	\$202.6
Total	\$64,200.3	\$66,615.0	\$54,459.2	\$61,334.1	\$57,584.2	\$47,101.8	\$57,676.6

**New York State
Energy Expenditure Estimates
by Fuel Type and Sector
in Constant 2021 Dollars
2007–2021**

Figure 5-2.

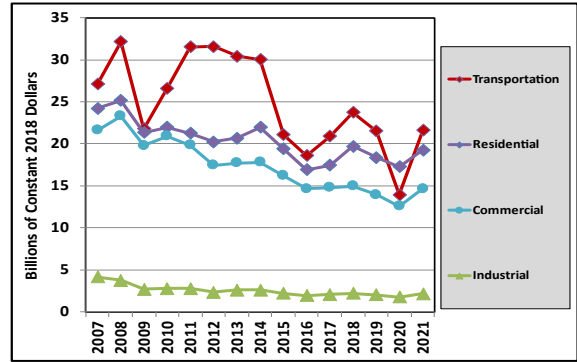


Table 5-2. (In Million Dollars)

	2007	2012	2017	2018	2019	2020	2021
Residential							
Coal	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Petroleum	\$5,199.0	\$4,762.8	\$2,407.0	\$3,284.5	\$2,992.6	\$1,938.2	\$2,769.5
Distillate	\$4,387.8	\$4,095.4	\$1,626.5	\$2,252.7	\$2,059.8	\$1,223.8	\$1,900.8
Kerosene	\$200.2	\$69.2	\$40.0	\$51.6	\$74.0	\$45.5	\$57.2
LPG	\$611.0	\$598.2	\$740.6	\$980.2	\$858.7	\$669.0	\$811.5
Natural Gas	\$7,858.1	\$5,227.9	\$5,498.6	\$6,193.7	\$6,048.1	\$5,593.3	\$6,139.0
Electricity	\$10,722.4	\$10,066.3	\$9,343.0	\$9,955.3	\$9,106.4	\$9,596.2	\$10,161.5
Wood	\$429.5	\$193.1	\$193.6	\$254.4	\$245.2	\$159.0	\$202.6
Total	\$24,211.0	\$20,250.1	\$17,442.3	\$19,687.9	\$18,392.3	\$17,286.6	\$19,272.6
Commercial							
Coal	\$10.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Petroleum	\$2,648.3	\$2,149.2	\$813.2	\$989.6	\$907.2	\$528.1	\$1,063.7
Distillate	\$1,809.5	\$1,442.8	\$658.9	\$822.8	\$768.0	\$393.6	\$829.8
Residual	\$672.2	\$551.3	\$14.8	\$10.4	\$7.3	\$4.3	\$13.6
Kerosene	\$37.1	\$11.3	\$3.1	\$5.7	\$9.6	\$4.4	\$5.5
LPG	\$129.4	\$143.9	\$136.5	\$150.8	\$122.3	\$125.7	\$214.9
Natural Gas	\$4,204.2	\$2,389.8	\$2,249.7	\$2,506.2	\$2,354.4	\$1,988.7	\$2,354.3
Electricity	\$14,767.2	\$12,902.7	\$11,732.4	\$11,470.3	\$10,686.1	\$10,044.1	\$11,239.0
Total	\$21,629.9	\$17,441.7	\$14,795.3	\$14,966.1	\$13,947.7	\$12,560.9	\$14,657.0
Industrial							
Coal	\$125.6	\$128.9	\$57.2	\$44.9	\$30.8	\$14.8	\$18.0
Petroleum	\$725.4	\$587.9	\$247.3	\$290.3	\$288.5	\$214.3	\$289.7
Distillate	\$453.3	\$404.8	\$170.2	\$200.9	\$218.3	\$140.3	\$169.1
Residual	\$112.6	\$75.2	\$27.9	\$27.0	\$22.8	\$9.3	\$32.1
Kerosene	\$27.4	\$23.7	\$5.0	\$13.0	\$11.8	\$27.3	\$10.2
LPG	\$132.1	\$84.2	\$44.2	\$49.4	\$35.6	\$37.5	\$78.3
Natural Gas	\$1,111.6	\$581.2	\$631.8	\$739.2	\$705.4	\$605.9	\$753.3
Electricity	\$2,197.7	\$1,034.2	\$1,113.9	\$1,121.4	\$997.1	\$921.0	\$1,071.4
Total	\$4,160.3	\$2,332.3	\$2,050.3	\$2,195.8	\$2,021.7	\$1,756.0	\$2,132.4
Transportation							
Petroleum	\$29,409.2	\$34,120.1	\$22,510.9	\$25,684.3	\$23,258.1	\$14,908.7	\$20,851.5
Distillate	\$4,345.3	\$5,282.3	\$3,908.4	\$4,843.7	\$4,315.5	\$3,403.7	\$3,993.1
Residual	\$435.1	\$544.3	\$187.3	\$213.4	\$91.1	\$88.2	\$199.6
Motor Gasoline	\$20,129.6	\$22,040.8	\$14,643.3	\$15,952.0	\$14,572.0	\$10,166.6	\$14,245.3
Jet Fuel	\$4,492.5	\$6,248.3	\$3,766.9	\$4,672.1	\$4,277.0	\$1,249.0	\$2,410.2
LPG	\$6.7	\$4.3	\$5.0	\$3.1	\$2.5	\$1.2	\$3.3
Natural Gas	\$261.5	\$508.0	\$332.1	\$312.2	\$324.2	\$280.2	\$452.1
Electricity	\$465.1	\$440.0	\$370.0	\$369.5	\$350.7	\$309.5	\$311.0
Total	\$30,135.8	\$35,068.1	\$23,213.1	\$26,366.1	\$23,932.9	\$15,498.3	\$21,614.6
Total							
Coal	\$137.7	\$128.9	\$57.2	\$44.9	\$30.8	\$14.8	\$18.0
Petroleum	\$37,981.9	\$41,620.0	\$25,978.5	\$30,248.7	\$27,446.3	\$17,589.3	\$24,974.4
Distillate	\$10,995.9	\$11,225.3	\$6,364.0	\$8,120.1	\$7,361.6	\$5,161.4	\$6,892.8
Residual	\$1,220.0	\$1,170.9	\$229.9	\$250.7	\$121.2	\$101.8	\$245.3
Motor Gasoline	\$20,129.6	\$22,040.8	\$14,643.3	\$15,952.0	\$14,572.0	\$10,166.6	\$14,245.3
Kerosene	\$264.8	\$104.1	\$48.0	\$70.2	\$95.4	\$77.2	\$72.9
Jet Fuel	\$4,492.5	\$6,248.3	\$3,766.9	\$4,672.1	\$4,277.0	\$1,249.0	\$2,410.2
LPG	\$879.1	\$830.6	\$926.4	\$1,183.5	\$1,019.2	\$833.3	\$1,108.0
Natural Gas	\$13,435.4	\$8,706.9	\$8,712.3	\$9,751.3	\$9,432.0	\$8,468.0	\$9,698.7
Electricity	\$28,152.4	\$24,443.2	\$22,559.4	\$22,916.6	\$21,140.2	\$20,870.7	\$22,782.9
Wood	\$429.5	\$193.1	\$193.6	\$254.4	\$245.2	\$159.0	\$202.6
Total	\$80,137.0	\$75,092.2	\$57,501.0	\$63,215.9	\$58,294.6	\$47,101.8	\$57,676.6

**New York Out-of-State
Energy Expenditure Estimates
by Fuel Type
in Nominal and
Constant 2020 Dollars
2007–2021**

Figure 5-3.

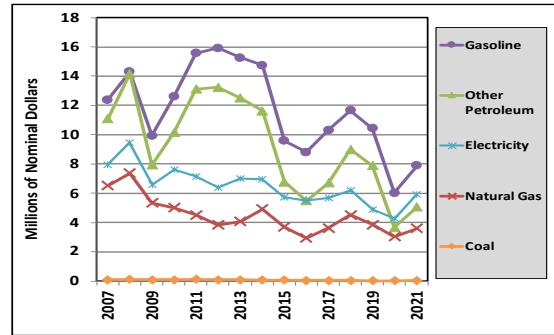


Table 5-3a. (In Million Nominal Dollars)

Year	Coal	Natural Gas	Gasoline	Other Petroleum	Electricity	Total
2007	\$ 93.8	\$ 6,516.4	\$ 12,378.7	\$ 12,050.0	\$ 7,954.7	\$ 38,993.6
2008	\$ 99.0	\$ 7,374.9	\$ 14,285.9	\$ 15,408.5	\$ 9,473.9	\$ 46,642.2
2009	\$ 83.1	\$ 5,344.9	\$ 9,939.7	\$ 8,631.5	\$ 6,570.3	\$ 30,569.4
2010	\$ 96.4	\$ 5,019.0	\$ 12,588.0	\$ 10,829.9	\$ 7,628.7	\$ 36,162.0
2011	\$ 104.8	\$ 4,520.3	\$ 15,569.7	\$ 14,304.3	\$ 7,124.4	\$ 41,623.6
2012	\$ 97.2	\$ 3,820.5	\$ 15,910.1	\$ 14,240.6	\$ 6,369.0	\$ 40,437.4
2013	\$ 80.1	\$ 4,062.2	\$ 15,248.9	\$ 13,623.3	\$ 6,988.3	\$ 40,002.8
2014	\$ 67.4	\$ 4,906.3	\$ 14,750.4	\$ 12,991.1	\$ 6,944.4	\$ 39,659.6
2015	\$ 65.9	\$ 3,680.7	\$ 9,576.6	\$ 7,510.2	\$ 5,708.4	\$ 26,541.8
2016	\$ 43.0	\$ 2,942.6	\$ 8,801.9	\$ 5,933.1	\$ 5,505.1	\$ 23,225.7
2017	\$ 46.1	\$ 3,625.6	\$ 10,299.7	\$ 7,017.8	\$ 5,686.2	\$ 26,675.4
2018	\$ 37.0	\$ 4,506.0	\$ 11,657.5	\$ 9,636.4	\$ 6,176.4	\$ 32,013.3
2019	\$ 25.8	\$ 3,850.8	\$ 10,422.6	\$ 7,895.7	\$ 4,875.4	\$ 27,070.4
2020	\$ 12.6	\$ 3,026.7	\$ 6,023.0	\$ 3,657.7	\$ 4,285.7	\$ 17,005.6
2021	\$ 27.4	\$ 3,592.3	\$ 7,675.6	\$ 5,067.8	\$ 5,937.0	\$ 22,300.0

Table 5-3b. (In Million Constant 2021 Dollars)

Year	Coal	Natural Gas	Gasoline	Other Petroleum	Electricity	Total
2007	\$ 117.1	\$ 8,134.0	\$ 15,451.5	\$ 13,837.8	\$ 9,929.3	\$ 47,469.7
2008	\$ 119.0	\$ 8,865.3	\$ 17,172.8	\$ 17,028.6	\$ 11,388.3	\$ 54,574.0
2009	\$ 100.2	\$ 6,447.9	\$ 11,991.0	\$ 9,574.7	\$ 7,926.2	\$ 36,040.0
2010	\$ 114.4	\$ 5,957.0	\$ 14,940.7	\$ 12,054.0	\$ 9,054.6	\$ 42,120.7
2011	\$ 120.6	\$ 5,201.0	\$ 17,914.2	\$ 15,080.9	\$ 8,197.2	\$ 46,514.0
2012	\$ 109.5	\$ 4,306.7	\$ 17,934.7	\$ 14,909.6	\$ 7,179.5	\$ 44,440.2
2013	\$ 89.0	\$ 4,513.1	\$ 16,941.3	\$ 13,880.5	\$ 7,763.9	\$ 43,187.6
2014	\$ 73.7	\$ 5,363.8	\$ 16,125.9	\$ 12,703.7	\$ 7,591.9	\$ 41,859.0
2015	\$ 72.0	\$ 4,019.2	\$ 10,457.2	\$ 7,398.9	\$ 6,233.3	\$ 28,180.4
2016	\$ 46.4	\$ 3,173.2	\$ 9,491.5	\$ 5,905.1	\$ 5,936.4	\$ 24,552.6
2017	\$ 48.6	\$ 3,828.2	\$ 10,875.0	\$ 7,084.0	\$ 6,012.2	\$ 27,848.0
2018	\$ 38.2	\$ 4,646.4	\$ 12,015.1	\$ 9,266.4	\$ 6,365.9	\$ 32,332.0
2019	\$ 26.2	\$ 3,898.3	\$ 10,551.2	\$ 7,993.1	\$ 4,935.6	\$ 27,404.3
2020	\$ 12.6	\$ 3,026.7	\$ 6,023.0	\$ 3,657.7	\$ 4,285.7	\$ 17,005.6
2021	\$ 27.4	\$ 3,592.3	\$ 7,675.6	\$ 5,067.8	\$ 5,937.0	\$ 22,300.0