Patterns and Trends: New York State Energy Profile, 2009–2023

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NEW YORK STATE
NYSERDA
New York State Energy Research and Development Authority
50 YEARS 1975-2025

NYSERDA's Mission:

NYSERDA catalyzes New York's clean energy transition.

Our Vision:

Clean energy that supports a healthier and thriving future for all New Yorkers.

Our Promise to New Yorkers:

NYSERDA serves New York State as a trusted and credible resource for energy information, policies, and programs, through objective analysis and planning, innovative solutions, and impactful investments that are valued by New York residents and businesses.

NYSERDA Record of Revision

Document Title
Patterns and Trends: New York State Energy Profile, 2009–2023

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12/8/2025	Original Issue	Original Issue
2/6/2026	Missing reference was identified and added	20-23 and 26:
2/6/2026	Appendix B: Table presentation for consumption of petroleum products (physical units only) were corrected.	B-3
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2/6/2026	Appendix B: Note added to clarify motor gasoline and ethanol consumption data presented in the table.	B-30
2/6/2026	Appendix D: Header names in the “Consumption-PhysicalUnits” tab were offset for the Electricity Generation data. Column header names were corrected. No changes to numeric data	D-1 Tab 2 Consumption-PhysicalUnits

Patterns and Trends:
New York State Energy Profile, 2009–2023

Final Report

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Abstract

Patterns and Trends: New York State Energy Profile, 2009–2023, presents a compilation of energy data and information. This report takes a statewide perspective on energy consumption, prices, and expenditures, along with a review of market observations and events that influenced these energy data.

Keywords

energy profile, consumption, prices, expenditures, energy markets, renewable energy, bioenergy, fossil fuels, electricity generation

Message from the President and Chief Executive Officer

New York State Energy Research and Development Authority's (NYSERDA) *Patterns and Trends: New York State Energy Profiles, 2009–2023*, presents a 15-year profile of energy-related data for New York State. This report has been updated to include the most recent statewide data available and is complemented by online resources to make the data easily accessible and interactive. NYSERDA's goal is to facilitate an easy exchange of critical energy information that can be leveraged by stakeholders for a myriad of uses. Important highlights include:

- Identification of global factors that drove energy sector observations for 2023, including global events influencing energy supply chains, U.S. economic conditions, and northeast weather conditions.
- A decline in overall energy and fuel consumption compared to 2022, primarily due to a milder winter season.
- A decrease in energy prices throughout 2023 as global supply chains recovered and stabilized following disruptions in 2022.

While energy markets are dynamic and interrelated, the information in this report advances the understanding of New York State's energy profile and provides everyone, from consumers to experts, vital information needed to make their own best energy choices.

Best,

Doreen M. Harris
President and CEO
NYSERDA

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Acronyms and Abbreviations

Btu	British thermal units
C	conventional storage
CDD	cooling degree days
CESER	Office of Cybersecurity, Energy Security, and Emergency Response
COVID-19	Coronavirus Disease 2019
DEC	New York State Department of Environmental Conservation
DHSES	New York State Division of Homeland Security and Emergency Services
DHSES	NYS Division of Homeland Security and Emergency Services
DOE	U.S. Department of Energy

DOT	U.S. Department of Transportation
DPS	New York State Department of Public Service
DTF	New York State Department of Tax and Finance
EIA	U.S. Energy Information Administration
EU	European Union
FHWA	Federal Highway Administration
GDP	gross domestic product
GHG	greenhouse gas
GWh	gigawatt hours
HDD	heating degree days
HFC	hydrofluorocarbon
HGL	hydrocarbon gas liquids
IND	industrial
kWh	kilowatt hours
LNG	liquefied natural gas
MMBtu	million British thermal units
MMBtu	million British thermal units
NOAA	National Oceanic and Atmospheric Administration
NYISO	New York State Independent System Operator
NYS	New York State
NYSERDA	New York State Research and Development Authority
OPEC+	Organization of Petroleum Exporting Countries and allies
PADD	Petroleum Administration for Defense District
Patterns and Trends	*Patterns and Trends: New York State Energy Profiles, 2009–2023*
PS	pumped storage
SEDS	State Energy Data System
SGF	supplemental gaseous fuel
TBtu	British thermal units
TBtu	trillion British thermal units
Σ	summation or total

Executive Summary

This report provides a historical review of energy consumption and expenditures in New York State (NYS) through 2023. In 2023, energy markets were impacted by global events ranging from continued conflicts, such as the Russo-Ukrainian War, supply and demand dynamics for energy products, and inflationary economic conditions. During 2023, the U.S. energy markets struggled with a variety of supply and demand challenges:

- Global supply chains continued to rebalance due to the Russian invasion of Ukraine and the implementation of economic sanctions on Russian energy products, specifically crude oil and petroleum products. Additionally, the U.S. imposed sanctions on Russian natural gas following an attack on Russia's Nord Stream 1 natural gas pipeline.
- For New York State, ultra-low sulfur diesel remained in a state of backwardation, a market condition in which the price of a commodity in the future is lower than the current price. This continued the trend of low regional inventories for this fuel type in the Northeast. Uncertainties drove continued backwardation, as previously discussed, stemming from the global and U.S. factors.

These were the primary drivers of consumption, prices, and expenditures observations for 2023.

Energy consumption for fuels fluctuated in 2023 when compared to the prior year, while energy prices generally declined following historically high energy and fuel prices in 2022. The year-over-year decline in prices led to NYS energy expenditures of approximately $74 billion (nominal dollars), an 8 percent decrease compared to 2022. The 2023 out-of-state expenditures were approximately $37 billion (nominal dollars) in 2023, representing a 23 percent decrease compared to 2022. Global and national market influences subsequently impacted the NYS energy and fuels supply chains, but aside from some significant localized weather effects, New York State experienced a warmer-than-normal winter, with no widespread effects on energy infrastructure resulting from 2023 weather conditions.

Table ES-1 and Figure ES-1 provide fundamental energy summaries for New York State as of 2023 based on U.S. Energy Information Administration (EIA) data.

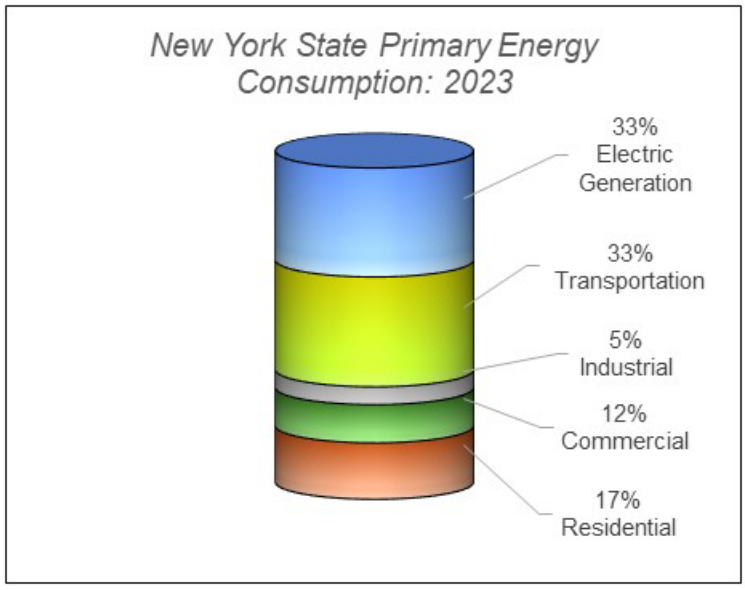
Table ES-1. New York State Executive Summary Statistics, 2023

Source: EIA (2025).

New York State Summary		
Primary Energy Consumption (TBtu)		3,528
Net Energy Consumption (TBtu)		2,843
Electricity Sales to Ultimate Customers (GWh)		139,422
Average Electricity Price (cents per kWh)	Total	18.33
	Residential	22.08
	Commercial	18.19
	Industrial	7.55
	Transportation	13.84

Figure ES-1. New York State Primary Energy Consumption by Sector

Source: EIA (2025).



Applying the updated 2023 energy data to socioeconomic datasets, New York State is ranked 48th for total consumer energy expenditure per capita. This infers that New York State is the third lowest per capita consumer energy expenditure state in the nation with an approximately 6% decline in 2023 compared to 2022.

This report provides additional details and resources for an expansive review of NYS energy for 2023, along with supplemental resources from New York State Energy Research and Development Authority (NYSERDA).

1 Introduction

1.1 *Patterns and Trends* Background

Patterns and Trends: New York State Energy Profile, 2009–2023 (*Patterns and Trends*) is the latest issue of the annual report organized by the New York State Energy Research and Development Authority (NYSERDA). This report presents New York State (NYS) energy statistics, evaluating energy consumption and prices over the past 15 years. Online resources associated with this reporting include an interactive web-based dashboard and access to historical energy data for New York State. These energy statistics provide a baseline reference for various research efforts conducted by NYSERDA and other government agencies, authorities, academia, and the public.

This reporting supports one of the fundamental purposes of NYSERDA as defined in New York State Law Chapter 43-A Public Authorities, Article 8, Title 9, §1854

> . . . to promote, develop, encourage, and assist in special energy projects and thereby advance job opportunities, health, general prosperity, and economic welfare of the people of the state of New York. (New York State Senate 2023, p.1.)

Additionally, *Patterns and Trends* plays a crucial role in national and regional energy emergency planning through coordinated efforts with the U.S. Department of Energy (DOE) Office of Cybersecurity, Energy Security, and Emergency Response (CESER), New York State Division of Homeland Security and Emergency Services (DHSES), New York State Department of Public Service (DPS), New York Independent System Operator (NYISO), and other emergency managers. *Patterns and Trends* is a required component of the New York State Energy Security Plan energy planning, aligning with DOE and CESER:

> The energy profile is part of the pre-event baselining activities performed during "blue sky" days [normal conditions; nonemergency management situations], which can be used for comparison purposes while assessing consequences during event response. (CESER 2022)

As New York State prepares to release its State Energy Plan[1] (NYS Energy Planning Board 2025), the data provided in this annual *Patterns and Trends* report supports energy tracking and planning associated with new and existing fuels.

[1] New York State Energy Plan website: https://energyplan.ny.gov/

1.2 New York State Energy Overview

In New York State, end users rely on complex supply chains for various fuels. These fuels are impacted by industry supply and demand dynamics, as well as broader market conditions. This report highlights historical fuel consumption across the State, fuels currently used across different sectors, and new energy sources under development for the future of NYS energy.

The fuels and energy types evaluated in this *Patterns and Trends* include:

- Natural gas
- Petroleum products
    - Distillate fuel oil
    - Kerosene
    - Aviation fuel
    - Motor gasoline
    - Residual fuel oil
- Electricity
- Pumped Storage
- Biofuels
    - Ethanol
    - Biodiesel
    - Wood
    - Waste energy
    - Landfill gas
- Renewables
    - Solar
    - Wind
    - Conventional hydroelectric generation
    - Geothermal

Appendix A provides detailed assumptions, methodologies, and any revisions to historical data. Data revisions are often issued by sources and affect year-over-year numbers. Any changes to source data methodologies can result in significant adjustments to the historical data presented. Appendix A documents these annual changes to clarify adjustments made to historical data.

The following sectors are evaluated for each fuel (as available):

- Residential
- Commercial
- Industrial
- Transportation
- Electric generation

Access an electronic version of this report, along with online dashboard resources and datasets, from the NYSERDA website.[2]

[2] NYSERDA Patterns and Trends website: https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends

2 Energy Market Trends Overview

The market dynamics from 2022 continued to influence energy and fuel markets in 2023, contributing to increased price volatility and periods of uncertainty regarding energy supply. Despite this, global supply chains slowly stabilized in 2023, driven by lower energy demand and production, resulting in lower prices. However, uncertainties associated with ongoing global conflicts continued to pose challenges for the energy sector. Lower energy prices relieved consumers of the historically high prices of 2022.

The 2023 energy demand, supply, and pricing in New York State were influenced by the following factors:

- Global conflicts
- Global supply and demand factors
- U.S. economic conditions
- Weather-related market influences

2.1 Global Conflicts

Geopolitical unrest has an impactful influence on global market supply and prices for crude oil, refined products, and energy products, along with many other traded commodities. The ongoing Russo-Ukrainian War. and the new conflict in the Middle East in 2023 created significant uncertainty in global energy supply chains, leading to volatile domestic markets in the U.S. These persistent conflicts added to supply chain uncertainty and subsequent volatility in energy and fuel prices.

2.1.1 Continuation of the Russo-Ukrainian War

The Russo-Ukrainian War continued to impact energy product planning for Europe and altered the global supply chain. This conflict prompted European countries to halt most natural gas imports from Russia via pipeline and to reactivate projects to expand liquefied natural gas (LNG) regasification facilities (EIA 2024a). In 2021, Russian pipeline-supplied natural gas made up approximately 50% of Europe's natural gas. LNG was among the most important fuels to balance European natural gas supply because Russian natural gas deliveries were slowed and eventually halted (Natural Gas Intelligence 2023a). The 2022–2023 winter was mild in the Northern Hemisphere, which eased demand during the transition away from Russian-supplied natural gas. However, it also started 2023 with elevated natural gas inventories for Europe and the Northeast U.S. (EIA 2024a).

The U.S. Gulf Coast led the way in maintaining Europe's supply, while Norway became the largest natural gas pipeline supplier to Europe (Natural Gas Intelligence 2023a). The supply chain adjustments made to address volatility during 2022 stabilized in 2023 as the new planning came to fruition, meeting European demand without Russian products.

Similarly, U.S. exports of coal to the European Union (EU) increased significantly after EU sanctions on Russian coal became effective in August 2022. The U.S., South Africa, and Colombia became the primary sources of coal to replace the lost Russian quantity (EIA 2025a).

2.1.2 Israel–Hamas Conflict in the Middle East

Israel declared war against the Islamic militant group, Hamas, in early October following a Hamas attack on Israeli territory. While the conflict developed in the final months of the year, a second global conflict was growing, increasing market uncertainty. The primary concern was potential disruptions to the global crude oil supply chain, which could impact regional supply chain dynamics in the U.S. (Natural Gas Intelligence 2023b).

2.2 Global Supply and Demand Factors

In addition to the global conflicts described previously, other factors also influenced the energy and fuel markets, including the following:

- Production cuts by the Organization of Petroleum Exporting Countries and allies (OPEC+)
- A rebound in China's consumer demand following the easing of Coronavirus Disease 2019 (COVID-19) restrictions

OPEC+'s decision to cut production resulted in a reduction in the supply of available crude oil in the market. Due to limited supply, crude oil prices increased in 2023, driven by the impact of these countries on the global supply chain. The cuts were in place during the first half of the year and extended in July 2023 for the rest of the year (EIA 2023b).

In addition to OPEC+ supply, global demand increased in 2023 as China eased travel restrictions and pandemic lockdowns. Due to the strict nature of China's pandemic response, the 2023 reopening led to increased domestic travel and a rise in crude oil movement to China, at levels last observed in 2019 (OPIS 2023a). By the end of 2023, China was processing an average of 14.8 million barrels per day of crude oil into petroleum products, marking an all-time high record due to economic growth and increased refinery capacity (EIA 2024b).

2.3 U.S. Economic Conditions

In May 2023, the U.S. Federal Reserve, in an effort to continue managing inflation, raised interest rates, which increased the borrowing costs for consumers and businesses. Consumer spending increased significantly following the easing of COVID-19 pandemic restrictions in 2021 and 2022. While inflation reached a peak of 7% in June 2022, the 4.4% rate it fell to in June 2023 was still below the Federal Reserve's 2% goal (Board of Governors 2023). In addition to relatively high interest rates, several bank failures occurred in 2023, most notably those of Signature Bank, First Republic Bank, and Silicon Valley Bank, increasing volatility in equity markets. Fearing a recession, many market participants engaged in conservative investing and sold off assets to mitigate potential losses (Board of Governors 2023; OPIS 2023b).

While rising inflation and a looming recession affected the U.S. economy, supply and demand dynamics from China also affected the U.S. and the global economy. As China eased COVID-19 pandemic restrictions, demand for products like crude oil was poised to jump, as more consumers traveled and spent money saved during the pandemic (S&P Global 2023). The relationship between global markets and the U.S. economy had a significant impact on energy and equity markets in 2023 as geopolitical uncertainty, supply and demand dynamics, and high prices contributed to challenging economic conditions.

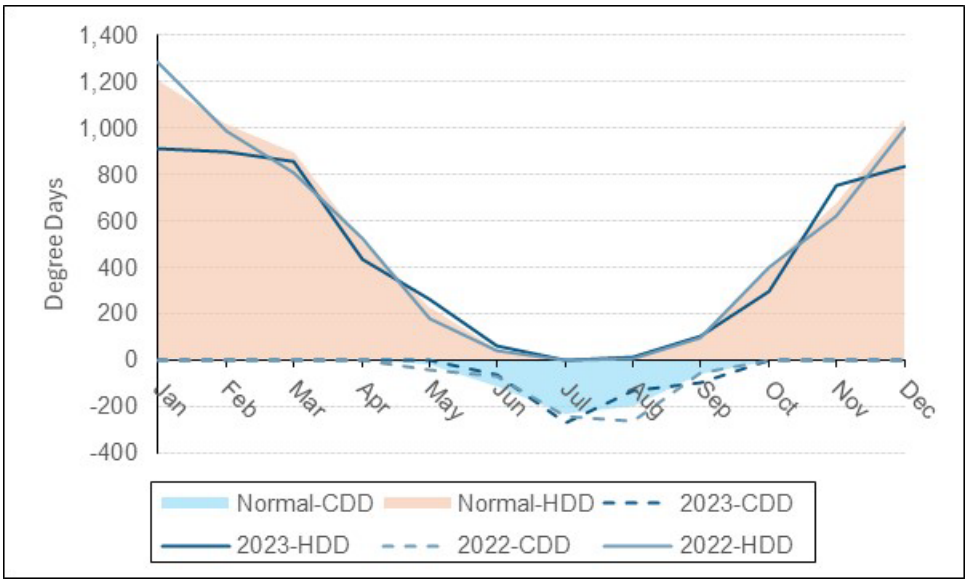
2.4 Weather-related Market Influences

Energy market prices and consumption are sensitive to weather conditions. During periods of cold temperatures, New York State requires increased use of a variety of heating fuels. Additionally, periods of hot temperatures put pressure on the electricity, and by extension natural gas, system to meet demand for cooling. These fundamental relationships exist under normal seasonal conditions and are amplified during extreme temperature events (e.g., polar vortices in winter; heat waves in summer). In 2023, weather was a stable factor for the State's energy sector, as analyzed using degree-day values from the National Oceanic and Atmospheric Administration (NOAA 2025). Figure 1 depicts the monthly degree-day summary for 2023, compared with 2022 and the meteorological normal.

Figure 1. New York State Degree-Day Summary, 2023

Source: NOAA (2025).

Negative values represent cooling degree days (CDD), and positive values represent heating degree days (HDD).



Based on 2023 degree days, two key observations can be made:

- Winter months were generally warmer than normal, with HDDs averaging approximately 13% below normal.
- Spring and summer were cooler than usual, with CDDs averaging approximately 4% below normal.

While regional temperature conditions differed from the statewide summary, the overall year was warmer than the normal winter and cooler than the normal summer, which took pressure off energy demand for these seasons.

The 2023 Atlantic hurricane season was above-average, producing 20 named storms, including 2 U.S. landfalls: one hurricane and one tropical storm (NOAA 2023).

- Hurricane Idalia made landfall near Keaton Beach, FL, as a Category 3 storm on August 30. It caused widespread damage in North Caroline due to the heavy rainfall, strong winds, and significant river and storm surge flooding.
- Tropical Storm Ophelia struck near Emerald Isle, NC, on September 23 as a powerful tropical storm.

Aside from the areas directly affected by hurricane landfalls, the 2023 storms did not significantly disrupt the energy and fuel supply chains serving New York State. However, several weather events throughout the year had short-term impacts on the State and the broader Northeast (NOAA 2024), including:

- **February 2023 winter storm:** A winter storm swept across the Northeast, followed by brief but intense cold temperatures. In New York State, this was a typical winter storm, requiring snow management to ensure safe travel. The cold blast prompted some adjustments to the energy system, particularly within the natural gas system, but operations returned to normal after the event.
- **March 13–15 nor'easter:** A nor'easter impacted Upstate New York, producing snow that required snow management and caused localized power outages. The storm, however, did not have long-term impacts on the State.
- **Strong nonhurricane storms:** Throughout 2023, New York State experienced several strong storms unrelated to major hurricanes or nor'easters. These spring storms caused localized flooding and significant damage in affected communities.

3 New York State Energy Profile

The consumption, prices, and expenditures for fuels and energy form the fundamentals of the NYS energy profile, summarized in this section. The data presented in this energy profile come from several sources, including the following:

- NYISO, *Load & Capacity Data Report* (2024)
- U.S. Energy Information Administration (EIA), *State Energy Data System* (SEDS; EIA 2025)
- U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), *Highway Statistics 2023* (USDOT 2024)
- New York State Department of Environmental Conservation (DEC), *Annual Well Production Searchable Database* (2025)

Appendix B organizes these datasets by sector and fuel type, detailing consumption, prices, and expenditures, and provides a 15-year historical perspective.

Appendix C presents a selection of NYS data points for additional considerations and calculations among the compiled energy datasets. These energy indicators reflect various economic, social, and transportation factors to further evaluate changes in energy patterns for New York State.

To support data accessibility, Appendix D is a data annex that contains all datasets summarized in this report and the online dashboard. Supplemental datasets in the data annex, although not explicitly discussed in this report, continue the presentation from the previous issue of *Patterns and Trends*.

Past issues of *Patterns and Trends* presented estimates of greenhouse gas (GHG) emissions by fuel type. Appendix E provides resources that the NYS Department of Environmental Conservation (DEC) and NYSERDA developed to maintain consistency in calculating and accounting for GHG emissions.

This *Patterns and Trends* report, the online dashboard, and the appendices offer a detailed examination of various energy topics for New York State. The energy research NYSERDA conducted is expansive, and Appendix F highlights additional resources that extend beyond these 2023 datasets to showcase completed or ongoing NYSERDA research efforts along with additional research resources.

3.1 New York State Energy Consumption

Primary consumption in New York State reached approximately 3,528 trillion British thermal units (TBtu) for 2023, reflecting a decrease of approximately 1% compared to 2022.

Table 1. New York State Consumption Summary

Values reported in TBtus.

Fuel	Residential	Commercial	Industrial	Transportation	Net Sectoral Consumption/ Generation	Electric Generation	Primary Consumption
Coal	0.0	0.0	4.8	0.0	4.8	0.0	4.8
Natural Gas	427.7	305.0	87.5	40.1	860.2	486.4	1,346.6
Petroleum Products (∑)[a]	125.6	57.5	75.4	1,078.0	1,336.6	3.7	1,340.3
Distillate	98.7	46.4	11.6	207.2	363.8	0.9	364.7
Residual	0.0	1.0	2.4	15.5	18.9	2.8	21.6
Kerosene	4.0	0.4	1.8	0.0	6.2	0.0	6.2
Propane (HGL)	23.0	9.8	3.6	0.3	36.7	0.0	36.7
Gasoline	0.0	0.0	0.0	584.8	584.8	0.0	584.8
Aviation Fuel	0.0	0.0	0.0	270.2	270.2	0.0	270.2
Other Petroleum	0.0	0.0	56.0	0.0	56.0	0.0	56.0
Supplemental Gaseous Fuel[b]	0.5	0.4	0.1	0.0	1.0	0.6	1.6
Renewables (∑)[a,c]	19.8	24.8	0.3	0.0	44.9	261.3	306.2
Solar[d]	18.8	23.0	0.3	0.0	42.1	1.8	43.9
Wind	0.0	0.0	0.0	0.0	0.0	38.7	38.7
Geothermal	1.0	1.7	0.0	0.0	2.7	0.0	2.7
Hydroelectric Generation (C)[d]	0.0	0.0	0.0	0.0	0.0	220.8	220.8
Renewable Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1. (continued)

Fuel	Residential	Commercial	Industrial	Transportation	Net Sectoral Consumption/ Generation	Electric Generation	Primary Consumption
Bioenergy (∑)[a,c]	27.0	20.5	21.7	51.7	120.9	18.8	139.7
Wood	22.3	4.0	18.9	0.0	45.2	0.0	45.2
Waste Energy	0.0	14.3	2.8	0.0	17.1	14.3	31.4
Ethanol	0.0	0.0	0.0	45.1	45.1	0.0	45.1
Biodiesel	4.7	2.2	0.0	6.6	13.4	0.0	13.4
Landfill Gas	0.0	0.0	0.0	0.0	0.0	4.4	4.4
Electric Sales	171.0	243.7	51.8	9.3	475.7	—	—
Net Consumption	771.1	651.4	241.5	1,179.1	2,843.1	—	—
			Pumped Storage (PS)[d]		-2.8	-2.8	
			Nuclear Generation		217.5	217.5	
			Net Imported Electricity		175.9	175.9	
			Primary Consumption		1,160.9	3,528.2	

[a] Lines with a (∑) reflect a fuel group with values representing a summation of individual fuels.
[b] Due to the derivation of supplemental gaseous fuel (SGF) from other petroleum product source processes, these have been accounted for as Other Petroleum (EIA 2023c) . These SGF estimates are not included in consumption summations and are presented for completeness only.
[c] Renewable and bioenergy fuels are estimated in their respective groupings. In this table, fuels such as gasoline and distillate are not comingled with their renewable and biofuels counterparts.
[d] Total solar generation for New York State is calculated as the sum of the electric generation sector output and the behind-the-meter solar estimate from the *NYISO 2024 Load & Capacity Data Report: Annual NYS Generation Summary and Forecast (commonly referred to as 2024 NYISO Gold Book*). Sectoral estimates for solar rely on using EIA State Energy Data System (SEDS) estimates for sectoral contribution applied to the NYISO behind-the-meter value.
[e] For hydroelectric generation, “C” represents conventional hydrogeneration and “PS” represents pumped storage hydrogeneration technologies. These generation types are accounted for in renewable and nonrenewable energy, respectively.

Global supply chain disruptions and geopolitical events significantly influenced energy markets. Statewide patterns in 2023 indicated that regional weather had minimal impact on overall energy consumption. With few exceptions, consumption of energy products was generally within 5% of 2022 levels. At a statewide perspective, the primary consumption decreased by approximately 1.3% for New York State along with the following details:

- **Overall consumption:** Consumption of most fuels declined during 2023 compared to the prior year, with limited exceptions for pumped storage hydroelectric generation, nuclear generation, renewables generation, and petroleum products.
    - Pumped storage hydroelectric generation remained negative in 2023, but used approximately 20% less energy than in 2022.
    - Nuclear generation increased by approximately 3%.
    - Renewable energy consumption increased by approximately 5%.
    - Total petroleum product consumption increased slightly by approximately 2%.
- **Renewable energy:** Renewable consumption grew overall in 2023, driven by increases in solar generation (approximately 18%), wind generation (approximately 2%), and conventional hydroelectric generation (approximately 3%) compared to 2022.
- **Petroleum products:** The slight increase in petroleum consumption was primarily due to higher transportation fuel use. Motor gasoline (including ethanol) consumption increased by approximately 2%, and aviation fuel consumption increased by approximately 12% compared to the prior year.
- **Sector trends:** Net energy consumption declined across the residential, commercial, and industrial sectors, while the transportation sector recorded an overall increase.

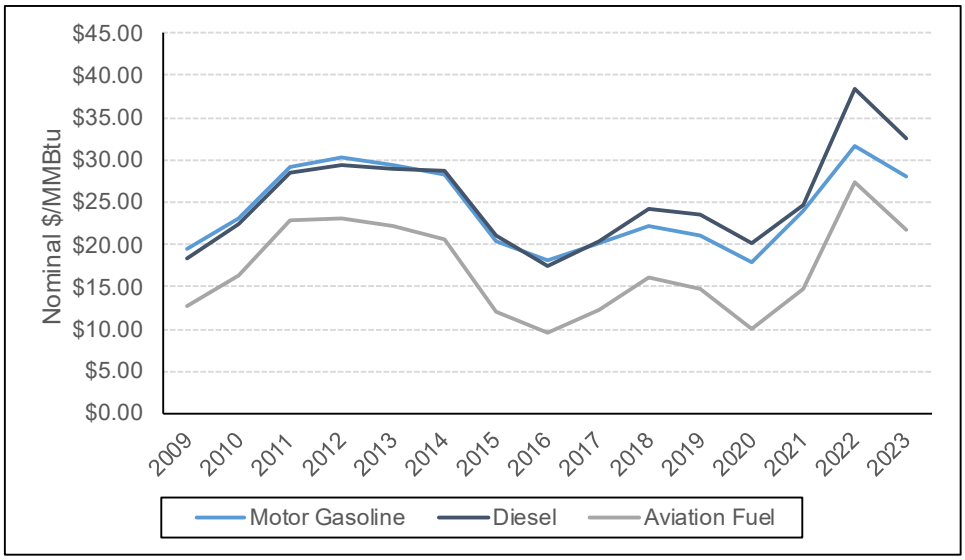
3.2 New York State Energy Prices

Energy prices for 2023 reflect the challenges along the supply chain for energy products. For some energy products, prices in 2022 represented the highest energy prices in the last 15 years. Appendix B highlights a significant price increase observed in every sector when compared to 2021.

The most common transportation fuels, including motor gasoline, diesel, and aviation fuel, experienced price declines of at least 10% during 2023 compared to the prior year (Figure 2). Evaluating prices per million British thermal units (MMBtu) in nominal dollars, motor gasoline prices decreased by approximately 11%, while diesel prices decreased by approximately 15%, and aviation fuel prices decreased by approximately 21% compared to 2022.

Figure 2. New York State Transportation Sector Select Fuels Prices, 15-Year History

Source: EIA (2025).



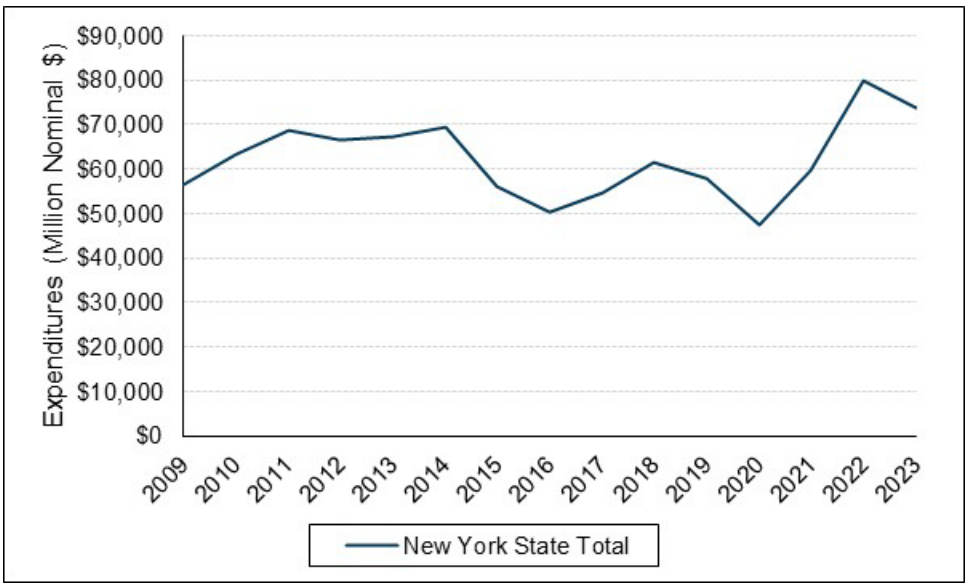
3.3 New York State Energy Expenditures

Energy expenditures reflect the annual consumption of fuel and the annual price. Appendix B highlights 2023 values and trends for specific energy products.

Expenditures declined in 2023 to approximately $73.7 billion, associated with the declines in consumption and prices during the same period (Figure 3). Expenditures for energy and fuels in New York State ranged between a decrease of approximately 32% for residual fuel oil to an increase of approximately 82% for kerosene. The estimated out-of-state expenditures for 2023 decreased approximately 23% overall to approximately $36.8 billion.

Figure 3. New York State Total Energy Expenditures, 15-Year Summary

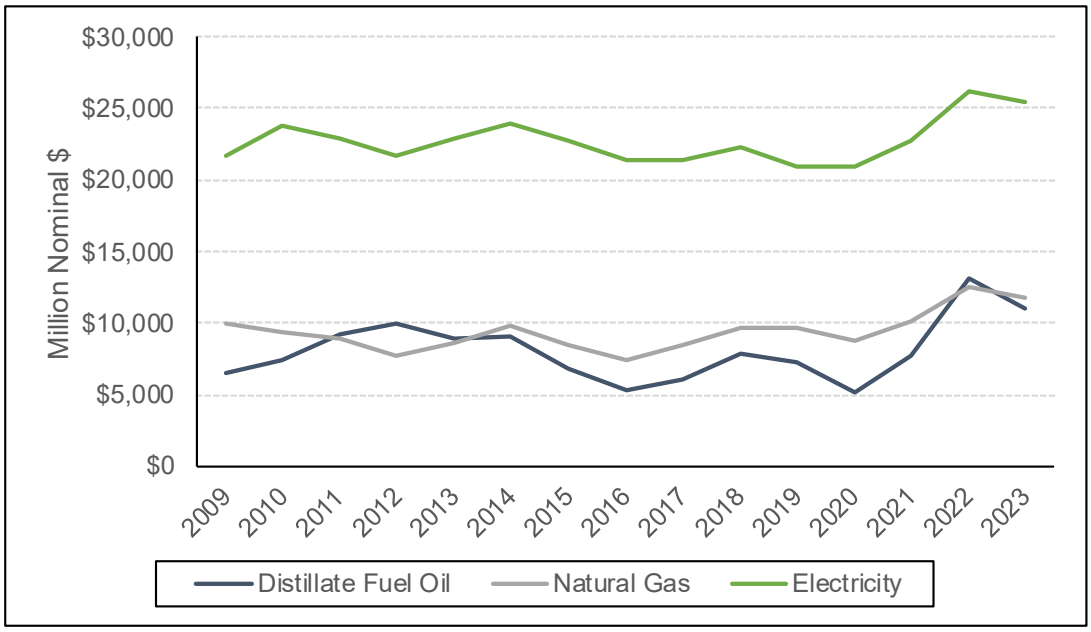
Source: EIA (2025).



Expenditures for heating fuels also generally decreased during 2023 (Figure 4), including distillate (approximately a 16% decrease), and natural gas (approximately a 6% reduction). Kerosene expenditures increased by approximately 82% as a result of elevated kerosene prices during 2023. Electricity expenditures decreased by approximately 3%.

Figure 4. New York State Total Energy Expenditures Select Fuels, 15-Year History

Source: EIA (2025).



3.4 New York State Sources of Energy

New York State relies on deliveries of various energy and fuel types via pipelines, marine, rail, highway, and transmission lines, with some production activities occurring within the State.

Table 2 summarizes the energy products produced in New York State.

Table 2. New York State Sources of Energy and Production

Values reported in TBtus.

Source: EIA (2025), DEC (2025).

Year	Conventional Hydroelectric Generation	Natural Gas	Crude Oil	Σ Bioenergy[a]	Renewable Diesel	Solar[b]	Wind[b]	Geothermal	Total Production[c]
2009	239.1	45.8	1.9	76.4	0.0	0.3	20.5	2.5	386.5
2010	217.4	36.6	2.2	91.0	0.0	0.5	23.3	2.8	373.8
2011	244.3	31.9	2.2	99.1	0.0	0.8	25.0	3.3	406.6
2012	213.8	27.2	2.1	98.1	0.0	1.5	26.0	3.0	371.7
2013	218.2	24.2	2.1	106.6	0.0	2.1	30.1	3.0	386.4
2014	217.2	20.8	2.1	106.5	0.0	3.1	33.3	2.9	386.0
2015	214.4	17.9	1.6	121.5	0.0	4.9	33.0	2.9	396.2
2016	216.7	13.9	1.3	114.6	0.0	6.9	32.5	2.9	388.7
2017	240.1	11.8	1.1	113.5	0.0	8.7	34.3	2.8	412.3
2018	234.3	11.0	1.3	114.4	0.0	12.5	32.1	2.8	408.4
2019	238.0	11.3	1.6	114.3	0.0	17.8	35.2	2.7	421.0
2020	231.8	10.0	1.4	83.4	0.0	21.0	32.7	2.7	383.0
2021	223.4	10.0	1.5	84.2	0.0	28.0	32.0	2.7	381.8
2022	214.4	9.7	1.5	97.6	0.0	37.2	37.8	2.7	400.9
2023	223.5	8.5	1.4	93.4	0.0	38.1	38.7	3.7	407.3
% Difference 2023–2022	**4%**	**-13%**	**-6%**	**-4%**	**NA**	**3%**	**2%**	**37%**	**2%**

[a] Σ "Bioenergy" is a summation of ethanol, biodiesel, wood, waste energy, and landfill gas production.
[b] Solar and wind production estimates rely on consumption data as an approximation for production.
[c] Overall, NYS production increased by approximately 2% during 2023 compared to the prior year. The most significant contributors to this increase include solar, geothermal, and wind, with growth rates of 3%, 37%, and 2%, respectively, compared to the previous year.

4 New York State's Rank Compared to National and Regional Energy Profiles

4.1 Energy Consumption Comparisons

The regional comparisons presented in the following sections focus on specific fuel and energy types to provide a broad perspective on essential fuels for the Northeast and Mid-Atlantic regions. These comparisons rely on the EIA State Energy Data System (SEDS) datasets while offering a focused comparison point for New York State compared to two regional groupings. The first group of states represents states directly bordering New York State, which includes New York State and the following states:

- Connecticut
- Massachusetts
- Pennsylvania
- New Jersey
- Vermont

The second group of states is the regional Petroleum Administration for Defense District (PADD) 1B: Central Atlantic States, which includes New York State and the following states:

- Delaware
- District of Columbia
- Maryland
- New Jersey
- Pennsylvania

NYSERDA incorporates multiple sources in the evaluation presented in Section 3 of the NYS energy profile in addition to the EIA datasets. However, because these sources do not provide information on other states, for the comparative purposes of this section, NYSERDA defers to the EIA estimates to maintain consistent data handling across all states. Although the outcomes are similar, slight differences exist between the evaluations from NYSERDA and EIA.

4.1.1 National Consumption Comparison

Table 3 summarizes New York State's rank for various fuel and energy types.

Table 3. New York State National Ranking for Select Energy and Fuels Consumption

Source: EIA (2025).

Energy/Fuel Type	NYS Ranking	Top Consuming State
Total Energy Consumption	7	TX
Coal	39	TX
Natural Gas	7	TX
Petroleum	5	TX
Nuclear	14	IL
Renewable Energy	7	CA

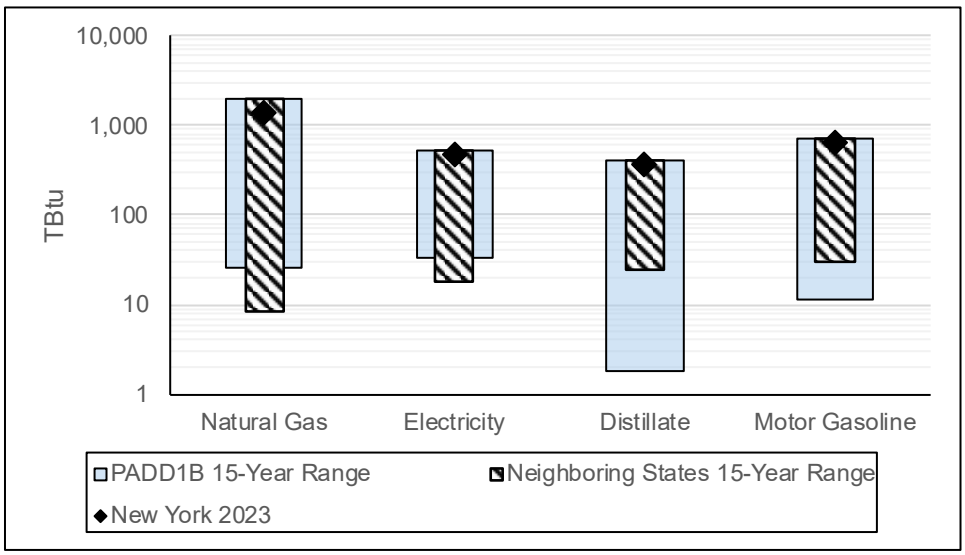
4.1.2 Regional Consumption Comparison

While state-by-state consumption estimates provide valuable insights, understanding the regional component of fuels and energy consumption remains essential due to broadly similar supply chains.

Figure 5 presents 15-year annual summaries for select fuels across PADD1B and for states bordering New York State. New York State typically ranks among the highest consumers of these select fuels for both regions. In 2023, New York State was the greatest consumer of electricity, distillate, and motor gasoline in the area. For natural gas, Pennsylvania was the greatest consumer, with New York State a close second.

Figure 5. Summary of Regional Consumption for Select Fuels

Source: EIA (2025).



Each fuel type presented reflects a total for the State, including all sectors combined. Natural gas, distillate, and motor gasoline consumption represent estimated "comingled" consumption that includes supplemental gaseous fuel, biodiesel or renewable diesel, and ethanol, respectively.

Despite the quantitative differences in consumption, these regional and neighboring states are connected through similar supply chains that can be influenced by weather events or other disruptions, resulting in regional impacts that extend across borders.

4.2 Energy Prices Comparisons

Fuel and energy prices are influenced by numerous factors across various scales—global and regional current events, as well as local conditions, which impact price and demand levels. For a multistate perspective, the EIA evaluation provides a consolidated dataset with consistent data handling to showcase annual price points. The annual profile presented in this report serves as an indicator for price trends in energy and fuels.

New York State ranks 14th nationally with a total energy price[3] of $27.05 per MMBtu (EIA 2025). Table 4 summarizes total energy prices for New York State's neighboring and regional states.

Table 4. Summary of Total Energy Prices for New York State's Neighboring and Regional States

Source: EIA (2025).

State	National Rank	Total Energy Price ($/MMBtu
Connecticut	3	32.32
Massachusetts	6	31.73
District of Columbia	5	32.28
Vermont	9	29.76
Maryland	10	28.85
New York	14	27.05
Delaware	15	26.70
New Jersey	18	25.20
Pennsylvania	28	23.67

[3] "Total end-use energy price estimates are the weighted average of the energy prices for the residential, commercial, industrial, and transportation sectors." (EIA 2025)

4.3 Energy Affordability Comparisons

Energy affordability is essential to energy planning and resilience in New York State. In recent years, this topic has become a focal point of understanding energy expenditure in the State. For this report, the EIA SEDS dataset was used to develop a national energy dataset that encompasses various segments of energy expenditure. Additionally, the State population and housing datasets were used to generate results that represent a baseline evaluation for energy affordability research.

Statewide and U.S. datasets from SEDS (EIA 2025) relied on for this evaluation are:

- Total residential sector energy expenditure
- Total transportation sector motor gasoline expenditure
- Estimated total consumer energy expenditure, calculated as follows:

$$\begin{aligned} &Estimated\ Total\ Consumer\ Energy\ Expenditure \\ &\quad = (Total\ Residential\ Sector\ Expenditure) \\ &\quad + (Transportation\ Sector\ Motor\ Gasoline\ Expenditure) \end{aligned}$$

The total residential expenditure is intended to capture the amount the residential sector spends on energy for heating, nonheating electricity (e.g., lights), and other residential uses (e.g., cooking). The transportation sector's motor gasoline expenditure was selected because a majority of State residents rely on gasoline-powered vehicles. NYSERDA notes that the total motor gasoline expenditure from SEDS also includes some commercially operated vehicles and reflects only an estimated value for what State residents spend on transportation. By combining the total residential expenditure and the transportation sector motor gasoline expenditure, the result is an estimated "total" expenditure for consumer energy in each state.

The energy expenditure datasets are then normalized by population (per capita) and by state-occupied households (per household) datasets from the U.S. Census Bureau (U.S. Census Bureau 2025) to generate a statewide expenditure for each of these categories. Figures 6 and 7 present a comparison of New York State to the other contiguous states. Due to data limitations, data from 2010 through 2023 are shown.

Figure 6. Estimated Total Consumer Energy Expenditure per Capita for New York State Compared to U.S. Contiguous States

Note: Excludes Alaska, Hawaii, and Washington, D.C.

Source: EIA (2025); U.S. Census Bureau (2025).

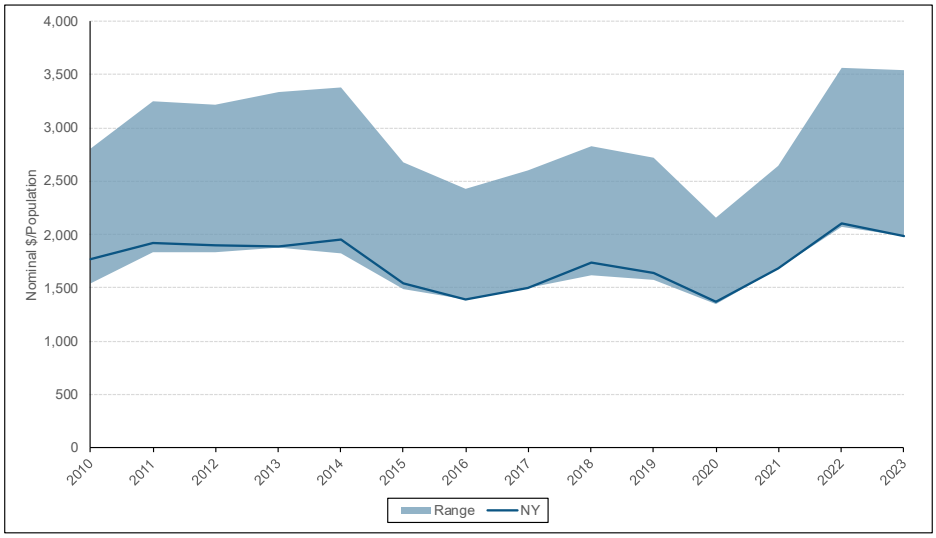
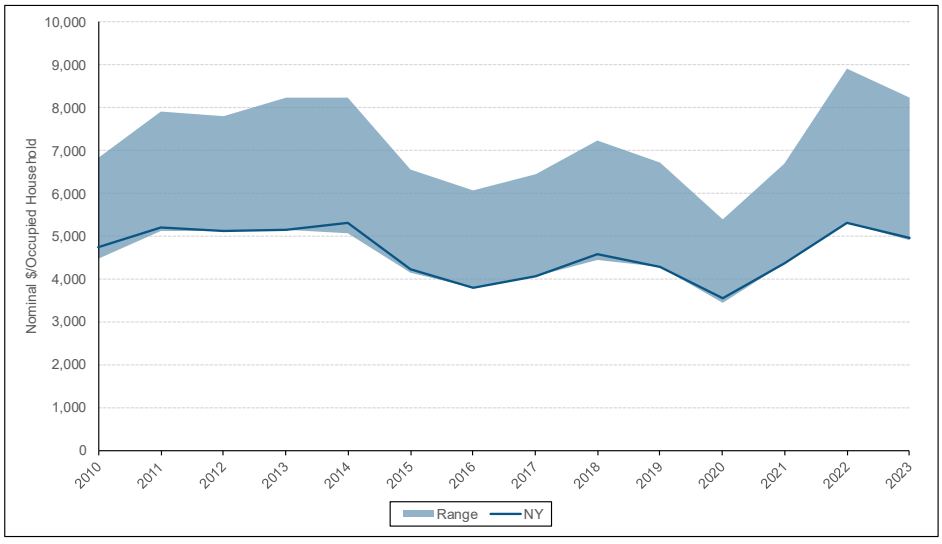


Figure 6 shows that New York State is ranked 48th for total consumer energy expenditure per state population (per capita) with an approximately 6% decline in 2023 compared to 2022.

Figure 7. Estimated Total Consumer Energy Expenditure per Occupied Household for New York State Compared to U.S. Contiguous States

Note: Excludes Alaska, Hawaii, and Washington, D.C.

Source: EIA (2025); U.S. Census Bureau (2025).



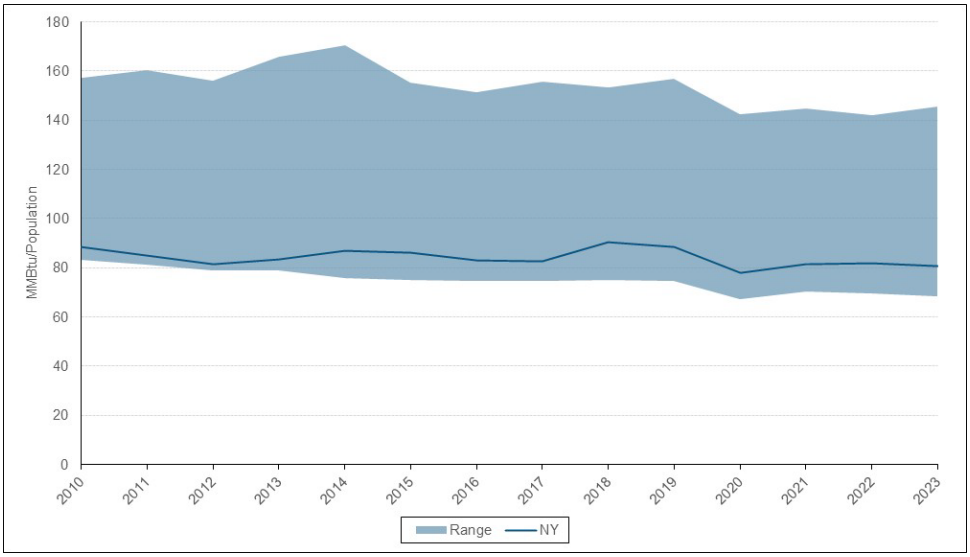
Similarly, in Figure 7, New York State's estimated total consumer energy expenditure per occupied household ranks 47th among contiguous states, with a decline of approximately 7% from 2022 to 2023.

Total energy consumption was also evaluated as part of the energy affordability assessment. Total consumer energy consumption per capita is presented in Figure 8 where New York State ranks 47th among U.S. contiguous states in 2023.

Figure 8. Estimated Total Consumer Energy Consumption per Capita for New York State Compared to Contiguous States

Note: Excludes Alaska, Hawaii, and Washington, D.C.

Source: EIA (2025); U.S. Census Bureau (2025).

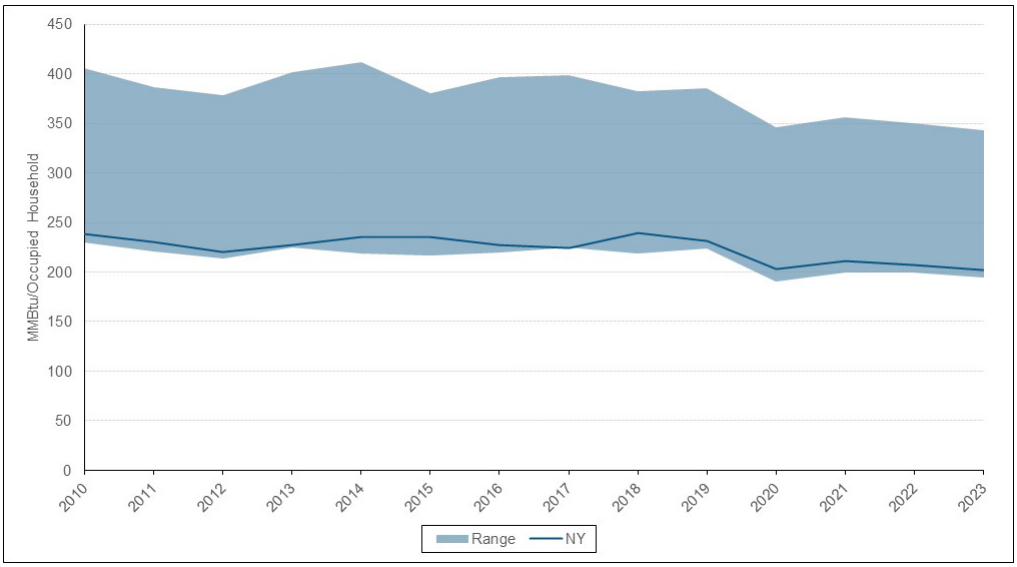


Total consumer energy consumption per occupied household is presented in Figure 9. New York State ranks 46th among U.S. contiguous states in 2023.

Figure 9. Estimated Total Consumer Energy Consumption per Occupied Household for New York State Compared to U.S. Contiguous States

Note: Excludes Alaska, Hawaii, and Washington, D.C.

Source: EIA (2025); U.S. Census Bureau (2025).



5 Conclusions and Looking Ahead

The following market drivers influenced the 2023 New York State energy landscape:

- **Global market influences on New York State supply chain and prices**
  - Conflicts, including the Russo-Ukraine War as well as the Israel–Hamas Conflict in the Middle East, kept markets volatile as potential supply chain disruptions mounted.
  - Energy demand in China was anticipated to grow rapidly with the lifting of COVID-19 pandemic restrictions, further influencing global energy markets.
- **Warm winter weather in the Northeast U.S. and Europe**
  - Despite supply chain changes from 2022, the warm winter weather in 2023 for the Northeast and Europe kept demand lower and helped establish prices below those observed in 2022.
  - Severe weather events were localized and did not significantly impact the regional Northeast supply chain.

The combination of these global and regional factors shaped demand for energy products in addition to the supply chain and market dynamics that defined the 2023 prices for these energy products. This translated to an approximate decline of 1 percent in primary consumption for New York State in 2023, including the following highlights:

- **Motor gasoline and aviation fuel consumption**
  - Motor gasoline consumption increased by approximately 2%, and aviation fuel consumption increased by approximately 12% in 2023 compared to 2022.
- **Residential and electric generation sector fuel consumption**
  - Residential sector distillate fuel oil consumption decreased by approximately 2%, and natural gas consumption decreased by approximately 8% compared to 2022.
  - Electric generation sector distillate fuel oil consumption decreased by approximately 85% in 2023 compared to 2022.
  - These decreases reflect the warmer winter season during 2023.
- **Energy prices and expenditures**
  - With few exceptions by sector and fuel, energy prices during 2023 generally declined compared to 2022.
  - Given that 2022 energy prices were among the highest in the past decade, the lower 2023 prices resulted in corresponding declines in energy expenditures.

With few exceptions based on sector and fuel, energy prices during 2023 generally declined compared to 2022. Considering that 2022 energy prices were among the highest in the past decade, the lower 2023 prices led to corresponding declines in energy expenditures.

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Appendix A. Methodology and Historical Data Revisions

A.1. U.S. Energy Information Administration Revisions and Updates

Each year, the U.S. Energy Information Administration (EIA) issues its State Energy Data System (SEDS) estimates, which form the foundation of New York State Research and Development Authority's (NYSERDA) *Patterns and Trends* report. Each issue presents an opportunity for EIA to revise data and update methodology in response to changes in the fuels and energy types used across the U.S. These adjustments often apply to historical data, resulting in year-to-year variations in the *Patterns and Trends* datasets.

A detailed log of all EIA data and methodology changes is available at: EIA Data Changes (https://www.eia.gov/state/seds/seds-data-changes.php?sid=NY#2023).

In 2023, EIA revised the following data and related historical datasets:

- **Natural gas:** EIA revised transportation sector natural gas prices from 2013 onward, using a combination of EIA survey data and price datasets from the U.S. Department of Energy Alternative Fuels Data Center's quarterly *Clean Cities and Communities Alternative Fuel Price Reports*.
- **Distillate fuel oil:** EIA revised consumption, prices, and expenditures datasets from 2009 onward following updates to biofuels blending and product-supplied accounting. Based on multiple monthly and annual datasets, EIA developed new SEDS estimates.
- **Biodiesel:** EIA updated the consumption data for all sectors from 2001 onward based on published and unpublished EIA surveys and public sources. From 2013 onward, EIA based residential and commercial consumption data on State public records and blended laws.
- **Wood:** EIA updated residential consumption data for 2020 and, moving forward, will calculate estimated consumption using several datasets.

EIA also revised datasets not included in the *Patterns and Trends* report, including electric vehicle charging infrastructure and carbon dioxide emissions from energy consumption datasets.

NYSERDA uses a fossil fuel equivalency approach to convert electricity generation from noncombustible renewable energy sources into energy units (trillion British thermal units, or TBtus) because fossil fuels still represent a significant share of New York State's energy system. In 2022, EIA updated its methodology for calculating the primary consumption of electricity generation from noncombustible

renewable energy sources, including geothermal, hydroelectric power, solar, and wind, and by adopting a captured energy approach instead of the fossil fuel equivalency approach. The EIA website provides details (https://www.eia.gov/state/seds/seds-change/index.php/).

EIA based its methodology change on a closer alignment with international energy statistics standards. NYSERDA has historically relied on these consumption values and similar conversion methods to estimate electric generation by these technologies. For the 2023 data update, NYSERDA will continue using the fossil fuel equivalency method for conversion. Although EIA's decision provides strong support for this change, various applications exist for each conversion method. NYSERDA will continue evaluating the impacts on *Patterns and Trends* and other research efforts. Consequently, the 2023 update of New York State's *Patterns and Trends* report will maintain consistency with previous issues by using the fossil fuel equivalency approach for calculating primary energy consumption. This method ensures comparability across other New York State energy and fuel types, given that fossil fuels still account for a significant share of the State's energy mix. The report will present detailed data for each energy type using both conversion methods.

A.2. NYSERDA Methodology Changes and Updates

The number of data sources used for NYSERDA's annual *Patterns and Trends* report requires careful attention to changes in those data sources and an evaluation of how NYSERDA has historically analyzed and reported results.

NYSERDA identified a conversion issue associated with the historical distributed (or behind-the-meter) solar estimates from the NYISO Gold Books for the 2008–2018 data presentation. The 2025 release of *Patterns and Trends* corrects this conversion to gigawatt-hours (GWh).

NYSERDA continues relying on Table A-1 as the source of aviation fuel consumption.

Table A-1. Sources of Aviation Fuel Consumption Estimates

Years	Source of Aviation Fuels Consumption Estimate
1960–1980	EIA
1981–2010	NYSERDA
2010–Present	EIA

Appendix D provides an estimate of motor gasoline consumption by county. NYSERDA identified a methodological inconsistency in historical estimates since the 2024 publication of *Patterns and Trends*. Starting with the 2025 dataset, NYSERDA standardizes the forecast for county-level motor gasoline consumption across both historical data and the most recent 2023 forecasts. Additionally, units for electricity prices (real and nominal) were mislabeled and is now correctly dollars per megawatt hour.

A.3 References

U.S. Energy Information Administration (EIA). 2025. *State Energy Data System.* June 29. EIA. Accessed July 2025. Analyses and visualization by NYSERDA. https://www.eia.gov/state/seds/seds-data-changes.php?sid=NY#2023

Appendix B. New York State Energy Profile Supplemental Visuals

This appendix organizes and visualizes datasets by sector and fuel type, detailing consumption, prices, and expenditures, and provides a 15-year historical perspective.

New York State Energy Profile—2023 Highlights

Primary Energy Consumption (TBtu)

New York Statewide Primary Consumption	3,528.2	↓
By Sector:		
Residential	600.1	↓
Commercial	407.7	↓
Industrial	189.7	↑
Transportation	1,169.8	↑
Electric Generation	1,160.9	↓
By Fuel Type:		
Petroleum	1,340.3	↑
Natural Gas (No SGF)	1,346.7	↓
Nuclear	217.5	↑
Renewable	306.2	↑
Net Imported Electricity	175.9	↓
Bioenergy	139.7	↓
Coal	4.8	↓
Pumped Storage	-2.8	↑

Average Energy Prices (Nominal Dollars)

Gasoline (all grades; per gallon)	$3.383	↓
Heating Oil (per gallon)	$3.602	↓
Natural Gas (per thousand cf)		
Residential	$16.992	↑
Commercial	$9.695	↓
Industrial	$10.463	↓
Electricity (per kWh)		
Residential	$0.222	↑
Commercial	$0.180	↓
Industrial	$0.069	↓

2023 Market Influences

1. Global conflicts such as the ongoing war in Ukraine as well as the Hamas attack of Israel.

2. Global recession and supply chain challenges.

3. OPEC(+) production cuts.

4. Warm winter temperatures in the U.S. and Europe.

Net Energy Consumption (TBtu)

New York Statewide Net Consumption	2,843.1	↓
By Sector:		
Residential	771.1	↓
Commercial	651.4	↓
Industrial	241.5	↓
Transportation	1,179.1	↑
By Fuel Type:		
Petroleum	1,336.6	↑
Natural Gas (No SGF)	860.2	↓
Electricity	475.7	↓
Renewable	44.9	↑
Bioenergy	120.9	↓
Coal	4.8	↓

cf = cubic feet; SGF = supplemental gaseous fuel;
GWh = Gigawatt hours;
TBtu = Trillion British thermal units
Arrows represent increase/decrease from prior year.
See NYSERDA Patterns & Trends full report for additional details

Electricity Consumption & Generation (GWh)

Sales to Ultimate Consumers:	139,422.0	↓
Net Consumption by Sector:		
Residential	50,113.0	↓
Commercial	71,422.0	↓
Industrial	15,174.0	↓
Transportation	2,713.0	↑
In-State Generation:	129,157.6	↓
Generation by Fuel Type:		
Nuclear	27,522.0	↑
Natural Gas (Includes SGF)	61,123.6	↓
Petroleum	105.7	↓
Wind	4,892.5	↑
Solar	5,558.9	↑
Bioenergy	2,372.2	↑
Pumped Storage	-352.0	↑
Conventional Hydroelectric Generation	27,935.0	↑
Net Imported Electricity	22,256.0	↓

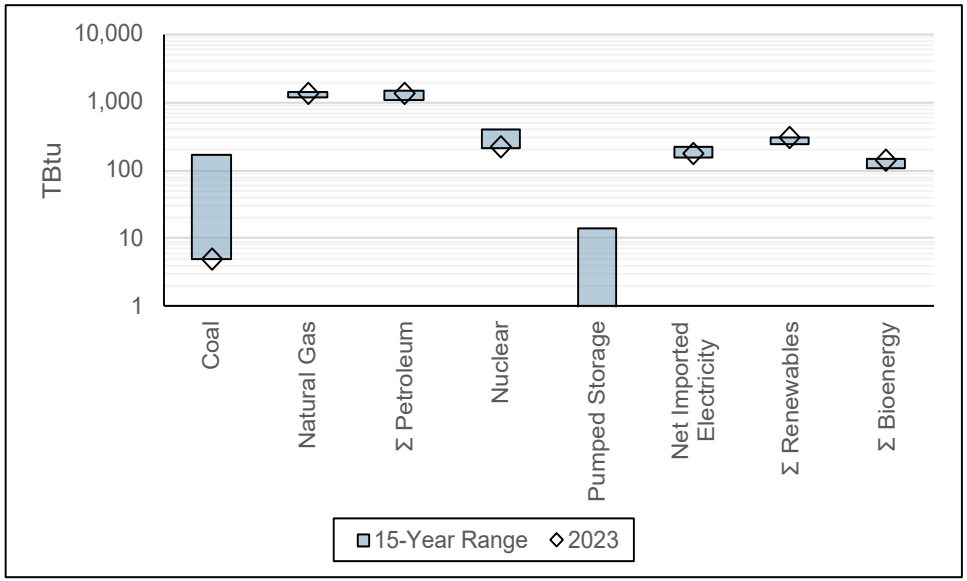
Expenditures (Billion Nominal Dollars)

New York Statewide Total:	$73.7	↓
Estimated Out-of-State	$36.8	↓
Expenditures by Sector:		
Residential	$22.0	↓
Commercial	$17.0	↓
Industrial	$2.4	↓
Transportation	$32.3	↓

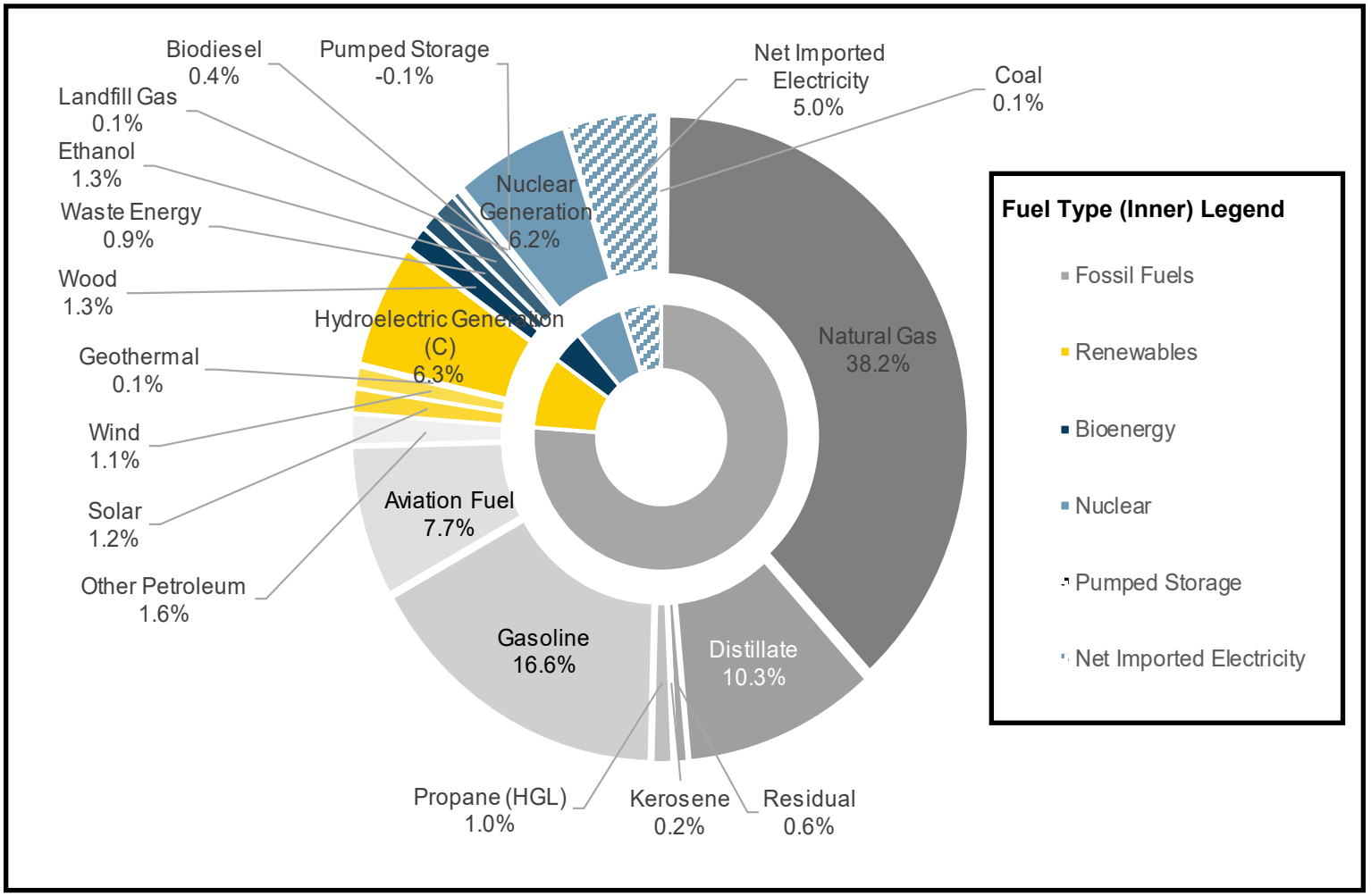
New York State Energy Profile—Consumption Totals

New York State Primary Consumption 15-Year Summary

Year	Coal		Natural Gas (No SGF)		Petroleum Products (Σ)		Nuclear		Pumped Storage		Net Imported Electricity		Renewables (Σ)	Bioenergy (Σ)
	TBtu	Mtons	TBtu	Bcf	TBtu	Mbbl	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu	TBtu
2009	156.0	7,032.0	1,166.6	1,141.5	1,485.7	263,662.0	393.5	43,487.0	13.8	1,525.0	211.4	23,361.1	262.5	106.3
2010	167.1	7,367.0	1,224.5	1,197.0	1,478.6	283,112.0	376.0	41,870.0	8.0	889.0	223.7	24,912.4	244.2	117.5
2011	125.2	5,604.0	1,247.8	1,215.0	1,381.1	265,842.0	377.8	42,728.0	6.4	720.6	220.0	24,882.9	273.6	121.5
2012	72.9	3,137.0	1,261.0	1,221.9	1,338.4	257,729.0	355.1	40,817.0	6.4	730.7	222.0	25,516.2	244.7	120.7
2013	68.7	3,041.0	1,315.3	1,270.8	1,325.3	256,526.0	381.1	44,756.0	6.5	765.6	220.5	25,901.6	254.0	129.1
2014	64.7	2,867.0	1,392.4	1,347.9	1,377.0	266,774.0	359.9	43,041.0	7.1	849.4	173.8	20,789.1	257.4	132.3
2015	41.2	1,761.0	1,396.7	1,352.1	1,378.6	266,935.0	369.6	44,620.0	6.8	824.8	164.1	19,809.1	256.6	147.3
2016	29.7	1,175.0	1,336.5	1,295.0	1,378.3	268,366.0	342.8	41,637.0	6.9	835.6	184.1	22,358.0	260.9	142.8
2017	19.6	738.0	1,276.9	1,236.1	1,374.7	268,298.0	342.6	42,175.0	6.5	795.3	197.5	24,319.1	288.5	143.2
2018	16.7	635.0	1,393.7	1,349.1	1,416.2	276,692.0	346.9	43,003.0	6.5	811.0	215.9	26,765.9	284.1	150.3
2019	13.6	536.0	1,337.8	1,296.3	1,380.4	270,327.0	353.7	44,788.0	4.6	583.0	182.7	23,134.0	293.8	147.5
2020	5.7	222.0	1,305.3	1,262.4	1,063.6	209,966.0	301.8	38,437.0	5.0	635.0	156.9	19,990.0	288.2	117.9
2021	5.4	211.0	1,359.4	1,317.3	1,233.9	242,180.0	242.3	31,113.0	5.5	711.9	213.4	27,394.0	286.1	125.8
2022	6.1	241.0	1,403.4	1,359.9	1,317.2	256,717.0	210.7	26,883.0	-3.5	-441.1	207.2	26,440.0	292.1	140.3
2023	4.8	191.0	1,346.7	1,304.9	1,340.3	261,343.0	217.5	27,522.0	-2.8	-352.0	175.9	22,256.0	306.2	139.7
% Difference 2023–2022	-21.5%	-20.7%	-4.0%	-4.0%	1.8%	1.8%	3.3%	2.4%	-19.5%	-20.2%	-15.1%	-15.8%	4.8%	-0.5%



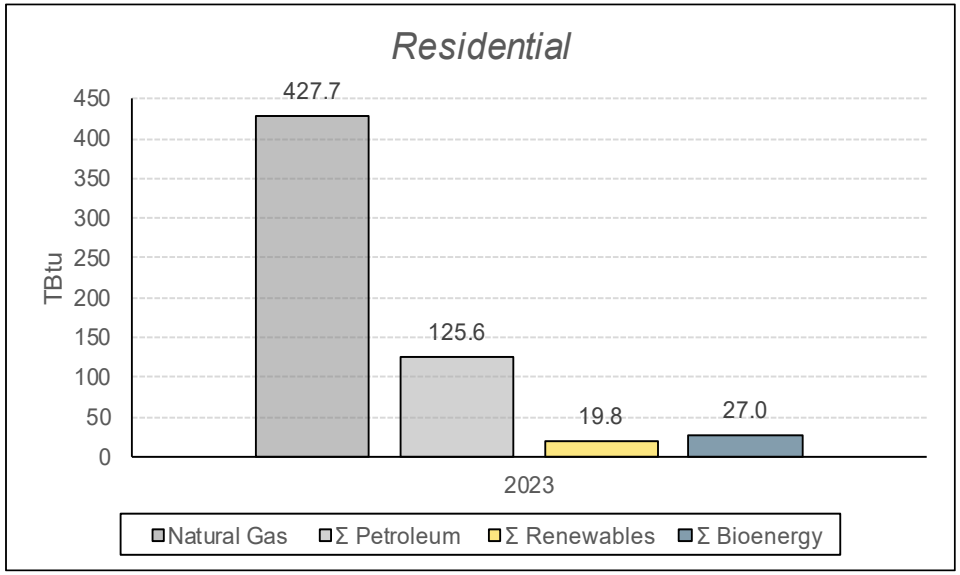
New York State Energy Profile—Primary Consumption Summary

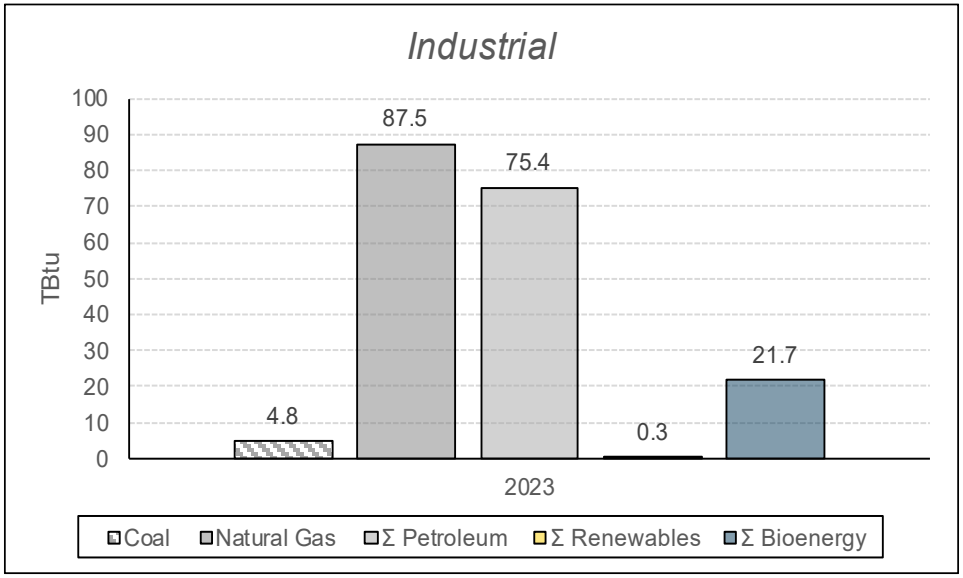


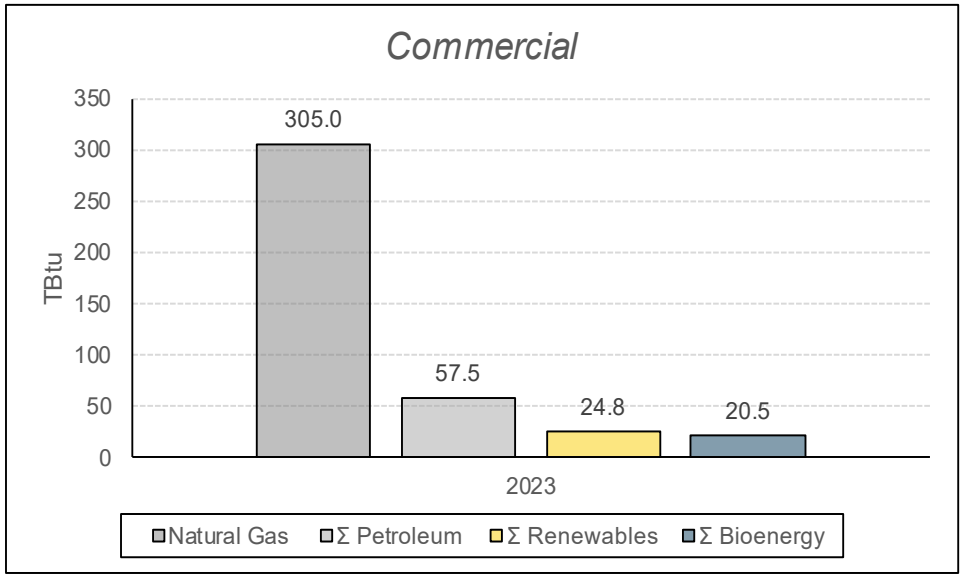
Note:

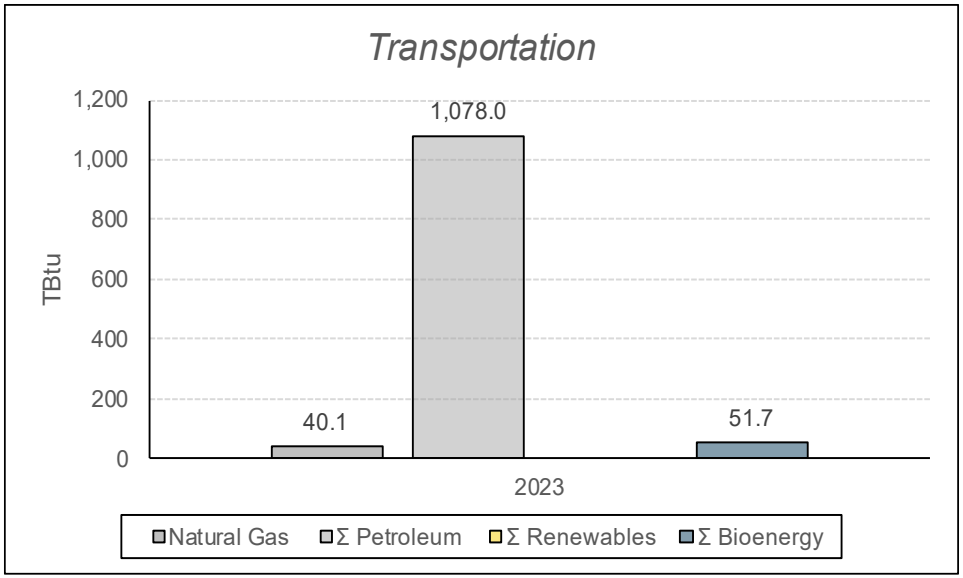
1. The "Net Imported Electricity" category reflects an estimate of electricity generated outside of New York that is brought into New York for consumption. This reflects multiple regions and System Operators, but also includes a range of generation types. See NYSERDA Patterns & Trends for additional discussion.
2. Natural gas is represented excluding supplemental gaseous fuels (SGFs).

New York State Energy Profile—Primary Consumption Summary by Sector





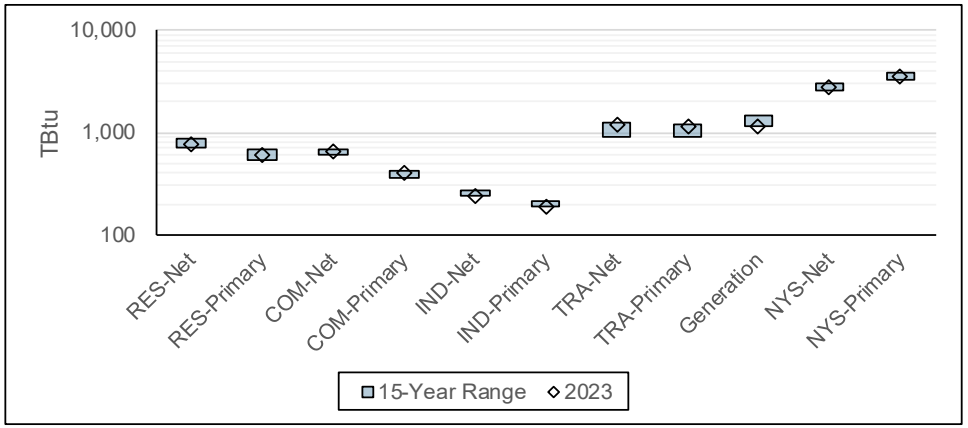




New York State Energy Profile—Primary and Net Consumption Summary by Sector

New York State Primary and Net Consumption of Energy by Sector (TBtu)

Year	Residential (RES)		Commercial (COM)		Industrial (IND)		Transportation (TRA)		Electric Generation	Total (NYS)	
	Net	Primary	Net	Primary	Net	Primary	Net	Primary		Net	Primary
2009	746.7	582.1	682.7	425.6	255.1	209.3	1,152.5	1,142.1	1,424.6	2,836.9	3,795.8
2010	737.4	563.6	680.0	416.4	252.1	206.1	1,198.5	1,188.6	1,462.1	2,868.1	3,839.5
2011	731.9	557.1	678.3	417.6	260.8	215.0	1,124.2	1,114.0	1,446.0	2,795.2	3,753.3
2012	706.1	533.1	630.8	371.4	253.0	206.2	1,102.9	1,093.5	1,410.5	2,692.7	3,621.1
2013	753.2	579.9	661.3	400.9	265.9	204.8	1,115.1	1,105.4	1,401.1	2,795.5	3,700.5
2014	809.7	639.2	663.7	402.5	266.1	204.7	1,176.5	1,166.8	1,342.2	2,916.0	3,764.5
2015	827.5	653.5	662.5	399.8	268.3	206.6	1,169.9	1,160.3	1,331.6	2,928.3	3,760.9
2016	747.8	574.4	643.8	382.8	263.3	202.9	1,214.5	1,205.1	1,308.2	2,869.4	3,681.9
2017	757.2	589.8	647.8	390.7	258.3	197.5	1,225.0	1,215.6	1,247.8	2,888.3	3,649.5
2018	857.2	679.2	674.6	412.7	262.4	200.7	1,234.8	1,224.7	1,301.3	3,028.9	3,830.1
2019	839.9	668.8	663.8	407.6	260.1	200.3	1,206.8	1,197.2	1,230.6	2,970.7	3,714.1
2020	765.3	587.0	600.7	365.3	244.8	188.1	922.0	913.3	1,181.9	2,532.9	3,244.4
2021	801.0	623.1	631.0	392.4	254.1	196.5	1,058.8	1,050.4	1,198.9	2,745.0	3,471.8
2022	813.6	635.4	659.7	413.4	244.7	189.5	1,145.6	1,136.8	1,196.0	2,863.7	3,573.6
2023	771.1	600.1	651.4	407.7	241.5	189.7	1,179.1	1,169.8	1,160.9	2,843.1	3,528.2
% Difference 2023–2022	*-5.2%*	*-5.6%*	*-1.3%*	*-1.4%*	*-1.3%*	*0.1%*	*2.9%*	*2.9%*	*-2.9%*	*-0.7%*	*-1.3%*



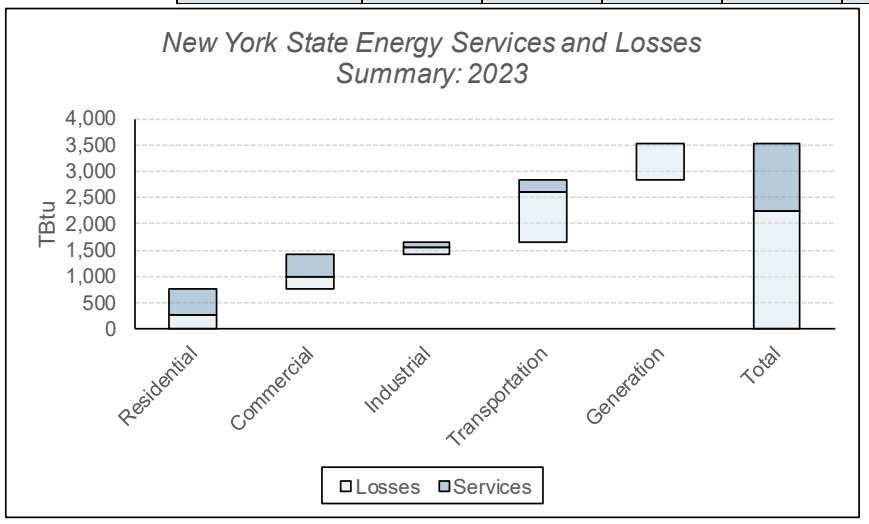
Notes:

1. Net consumption for each sector includes the consumption of sectoral electricity (estimated by USEIA). Customer-sited ("behind-the-meter") solar is estimated for each sector using the total estimated by NYISO and applying sectoral contribution percentages based on USEIA data.
2. Primary consumption represents the consumption of fuels and energy that are not produced by the electric generation sector and accounting for utility-generated electricity as a unique sector.

New York State Energy Profile—Energy Services and Losses Summary by Sector

New York State Energy Services and Losses (TBtu)

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	Total	
	Services	Losses	Services	Losses	Services	Losses	Services	Losses	Losses	Services	Losses
2009	485.4	261.3	443.7	238.9	125.0	130.1	242.0	910.4	958.9	1,296.1	2,499.7
2010	479.3	258.1	442.0	238.0	123.5	128.6	251.7	946.8	971.4	1,296.6	2,542.9
2011	475.7	256.2	440.9	237.4	127.8	133.0	236.1	888.1	958.2	1,280.5	2,472.8
2012	459.0	247.1	410.0	220.8	124.0	129.0	231.6	871.3	928.4	1,224.5	2,396.6
2013	489.6	263.6	429.9	231.5	130.3	135.6	234.2	881.0	905.0	1,283.9	2,416.6
2014	526.3	283.4	431.4	232.3	130.4	135.7	247.1	929.4	848.5	1,335.2	2,429.4
2015	537.9	289.6	430.6	231.9	131.5	136.8	245.7	924.3	832.6	1,345.7	2,415.2
2016	486.1	261.7	418.5	225.3	129.0	134.3	255.1	959.5	812.5	1,288.6	2,393.3
2017	492.2	265.0	421.1	226.7	126.6	131.7	257.3	967.8	761.2	1,297.1	2,352.4
2018	557.2	300.0	438.5	236.1	128.6	133.8	259.3	975.5	801.1	1,383.5	2,446.5
2019	546.0	294.0	431.5	232.3	127.5	132.7	253.4	953.4	743.4	1,358.3	2,355.7
2020	497.4	267.8	390.5	210.3	120.0	124.9	193.6	728.4	711.5	1,201.5	2,042.9
2021	520.7	280.4	410.1	220.8	124.5	129.6	222.4	836.5	726.8	1,277.7	2,194.1
2022	528.8	284.8	428.8	230.9	119.9	124.8	240.6	905.1	709.9	1,318.2	2,255.4
2023	501.2	269.9	423.4	228.0	118.3	123.2	247.6	931.5	685.1	1,290.6	2,237.6
% Difference 2023–2022	*-5.2%*	*-5.2%*	*-1.3%*	*-1.3%*	*-1.3%*	*-1.3%*	*2.9%*	*2.9%*	*-3.5%*	*-2.1%*	*-0.8%*



Notes:

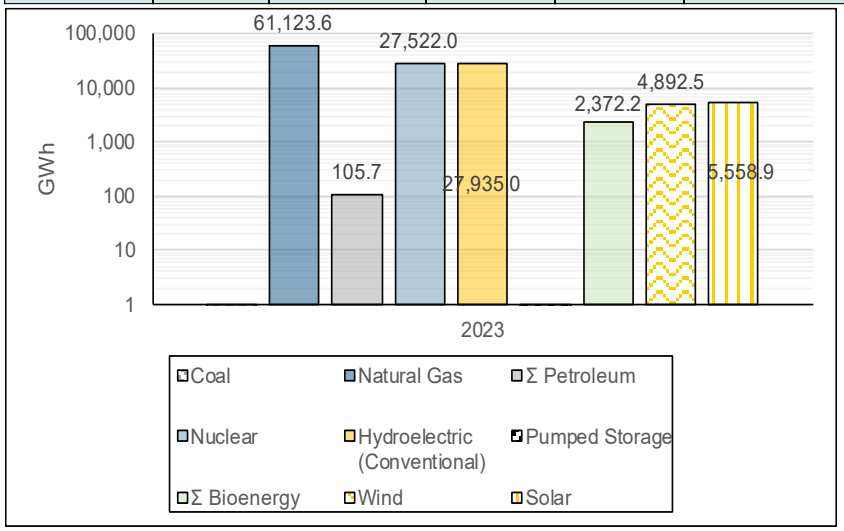
1. Electric losses are calculated as the difference between energy input for electricity generation and energy from retail electricity sales.
2. Sectoral estimates are calculated based on Lawrence Livermore National Laboratory end-use efficiency factors:

- Residential = 65%
- Commercial = 65%
- Industrial = 49%
- Transportation = 21%

New York State Energy Profile—Generation by Fuel Type

New York State Generation by Fuel Type 15-Year History (GWh)

Year	Coal	Natural Gas (including SGF)	Petroleum Products (Σ)	Nuclear	Conventional Hydroelectric Generation	Pumped Storage	Bioenergy			Wind	Solar
							Wood	Landfill Gas	Waste Energy		
2009	12,758.9	44,625.1	2,828.7	43,487.0	26,420.0	1,525.0	340.0	648.0	1,900.0	2,266.3	38.1
2010	13,582.8	51,077.0	2,093.6	41,870.0	24,214.0	889.0	315.0	708.0	1,893.0	2,596.2	69.6
2011	9,426.2	52,713.2	1,234.2	42,728.0	27,634.1	720.6	209.6	735.1	1,878.4	2,828.1	110.3
2012	4,551.0	62,072.7	605.8	40,817.0	24,572.3	730.7	310.9	736.4	1,897.4	2,991.6	213.4
2013	4,697.1	57,039.2	1,057.1	44,756.0	25,631.0	765.6	376.6	827.7	1,798.6	3,539.5	313.3
2014	4,325.4	57,506.9	2,259.3	43,041.0	25,974.0	849.4	538.6	789.4	1,866.0	3,985.8	476.8
2015	2,046.2	59,919.1	1,991.9	44,620.0	25,879.4	824.8	422.0	744.7	1,861.5	3,983.8	759.2
2016	1,492.8	59,697.6	675.8	41,637.0	26,314.1	835.6	292.5	747.7	1,840.9	3,943.3	1,085.2
2017	567.4	50,270.2	635.8	42,175.0	29,554.2	795.3	288.3	730.1	1,900.1	4,219.2	1,396.8
2018	692.0	53,593.1	1,677.8	43,003.0	29,045.0	811.0	203.4	647.6	1,878.4	3,985.1	1,816.8
2019	425.7	49,450.9	1,994.4	44,788.0	30,141.3	583.0	154.6	661.0	1,832.3	4,453.6	2,260.1
2020	146.0	54,094.0	2,189.0	38,437.0	29,521.0	635.0	0.0	613.0	1,620.0	4,163.0	2,679.0
2021	0.0	59,461.8	158.9	31,113.0	28,674.7	711.9	0.0	652.9	1,832.3	4,110.7	3,594.8
2022	0.0	64,432.6	170.5	26,883.0	27,354.3	-441.1	0.0	589.5	1,778.8	4,825.1	4,745.4
2023	0.0	61,123.6	105.7	27,522.0	27,935.0	-352.0	0.0	560.7	1,811.5	4,892.5	5,558.9
% Difference 2023–2022	N/A	-5.1%	-38.0%	2.4%	2.1%	-20.2%	N/A	-4.9%	1.8%	1.4%	17.1%



Notes:

1. Generation estimates source data from annual Gold Book (NYISO, 2023) publications.
2. Estimate for solar generation represents the sum of utility generation as well as generation from residential, commercial, and industrial sectors as “behind-the-meter.”

New York State Energy Profile—Generation Fuel Type Summary

New York State Generation Summary 15-Year History (GWh)

Year	Bioenergy (Σ)	Renewable Energy (Σ)	Fossil Fuels (Σ)	Nuclear	Pumped Storage	Net Imported Electricity
2009	2,888.0	28,724.4	60,212.7	43,487.0	1,525.0	23,361.1
2010	2,916.0	26,879.8	66,753.4	41,870.0	889.0	24,912.4
2011	2,823.2	30,572.5	63,373.5	42,728.0	720.6	24,882.9
2012	2,944.7	27,777.3	67,229.5	40,817.0	730.7	25,516.2
2013	3,002.9	29,483.8	62,793.4	44,756.0	765.6	25,901.6
2014	3,194.0	30,436.6	64,091.7	43,041.0	849.4	20,789.1
2015	3,028.2	30,622.5	63,957.1	44,620.0	824.8	19,809.1
2016	2,881.1	31,342.6	61,866.2	41,637.0	835.6	22,358.0
2017	2,918.5	35,170.2	51,473.4	42,175.0	795.3	24,319.1
2018	2,729.4	34,846.9	55,962.9	43,003.0	811.0	26,765.9
2019	2,647.9	36,855.0	51,871.0	44,788.0	583.0	23,134.0
2020	2,233.0	36,363.0	56,429.0	38,437.0	635.0	19,990.0
2021	2,485.2	36,380.2	59,620.7	31,113.0	711.9	27,394.0
2022	2,368.3	36,924.8	64,603.1	26,883.0	-441.1	26,440.0
2023	2,372.2	38,386.4	61,229.3	27,522.0	-352.0	22,256.0
% Difference 2023–2022	0.2%	4.0%	-5.2%	2.4%	-20.2%	-15.8%

Notes:

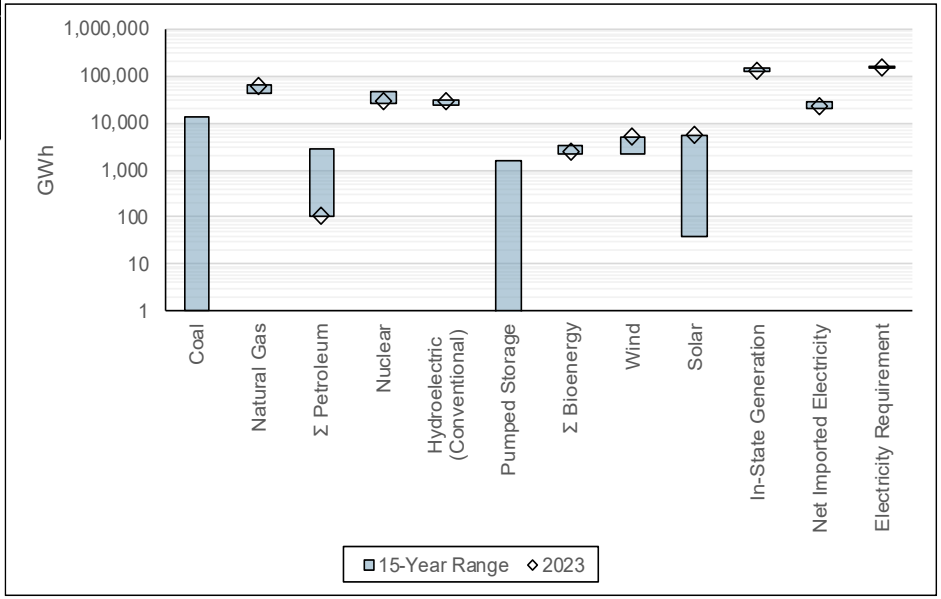
1. Definitions for grouped categories are as follows:

   Σ Bioenergy = Wood + Landfill Gas + Waste Energy Generation

   Σ Renewables = Wind + Solar + Conventional Hydroelectric Generation

2. NYISO reports that Pumped Storage Hydroelectric Generation required more energy than generated. While possible for this technology, NYSERDA will continue to evaluate if this was a result of “reporting timing” and will be adjusted in future iterations if needed.

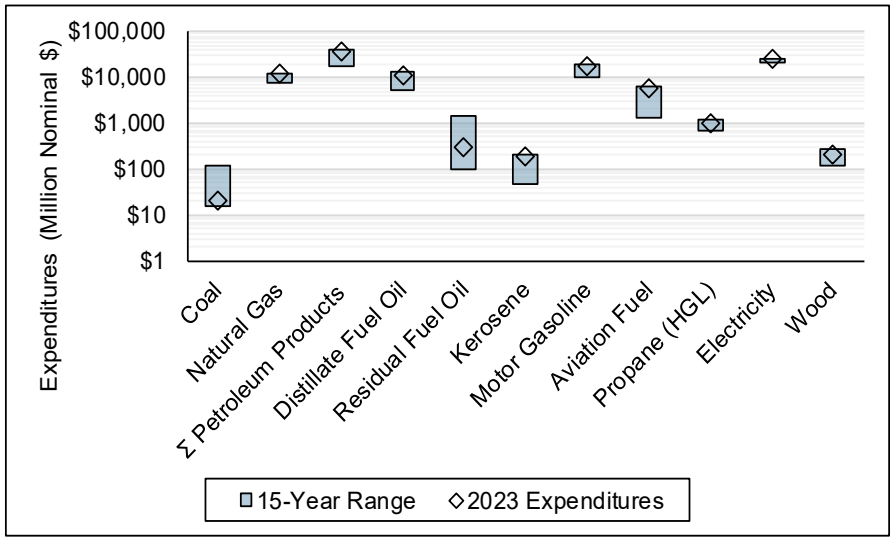
3. Estimate for solar generation represents the sum of utility generation as well as generation from residential, commercial, and industrial sectors as “behind-the-meter”.



New York State Energy Profile—Expenditures

New York State Total Energy Expenditures (Million Nominal $)

Year	Coal	Natural Gas	Σ Petroleum Products	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Motor Gasoline	Aviation Fuel	Propane (HGL)	Electricity	Wood	NYS Total
2009	$97.73	$9,982.06	$24,597.76	$6,480.37	$1,174.26	$141.39	$13,428.56	$2,534.04	$839.14	$21,625.06	$124.76	*$56,427.37*
2010	$113.43	$9,415.61	$29,932.91	$7,467.21	$1,502.91	$213.22	$16,078.83	$3,786.64	$884.10	$23,735.25	$157.88	*$63,355.08*
2011	$123.33	$8,953.45	$36,367.79	$9,299.19	$1,392.38	$165.41	$19,298.88	$5,277.06	$934.86	$22,887.17	$184.11	*$68,515.85*
2012	$114.33	$7,724.00	$36,781.75	$9,957.04	$1,038.67	$92.38	$19,552.63	$5,404.22	$736.81	$21,683.82	$171.33	*$66,475.23*
2013	$94.20	$8,617.05	$35,395.41	$9,001.58	$1,022.30	$83.47	$18,980.94	$5,488.55	$818.58	$22,834.84	$218.96	*$67,160.46*
2014	$79.34	$9,772.97	$35,275.78	$9,086.56	$773.96	$144.09	$18,936.95	$5,239.00	$1,095.22	$23,949.47	$216.04	*$69,293.61*
2015	$77.52	$8,433.41	$24,620.09	$6,887.88	$266.24	$56.23	$13,447.75	$3,203.69	$758.29	$22,748.45	$247.24	*$56,126.71*
2016	$50.57	$7,358.17	$21,330.09	$5,310.56	$204.28	$60.93	$12,353.93	$2,684.37	$716.02	$21,388.68	$169.09	*$50,296.60*
2017	$54.19	$8,477.18	$24,617.99	$6,029.52	$217.75	$45.45	$13,868.68	$3,581.91	$874.68	$21,365.98	$183.01	*$54,698.36*
2018	$43.57	$9,750.93	$29,367.57	$7,876.73	$243.28	$68.11	$15,477.13	$4,556.72	$1,145.61	$22,234.39	$246.70	*$61,643.17*
2019	$30.40	$9,665.06	$27,141.91	$7,269.41	$119.29	$94.21	$14,394.40	$4,258.37	$1,006.24	$20,882.63	$242.21	*$57,962.20*
2020	$14.80	$8,795.47	$17,696.55	$5,161.15	$101.74	$77.16	$10,166.57	$1,353.21	$836.71	$20,870.71	$113.68	*$47,491.22*
2021	$18.04	$10,064.42	$26,655.78	$7,692.36	$245.26	$72.96	$14,969.12	$2,570.10	$1,105.98	$22,782.88	$141.08	*$59,662.21*
2022	$22.42	$12,566.44	$40,909.13	$13,175.24	$423.43	$106.89	$19,435.85	$6,580.85	$1,186.88	$26,246.27	$274.88	*$80,019.14*
2023	$19.77	$11,846.35	$36,182.96	$11,080.12	$289.30	$194.60	$17,727.24	$5,860.07	$1,031.61	$25,483.22	$213.82	*$73,746.12*
% Difference 2023–2022	-11.8%	-5.7%	-11.6%	-15.9%	-31.7%	82.1%	-8.8%	-11.0%	-13.1%	-2.9%	-22.2%	-7.8%



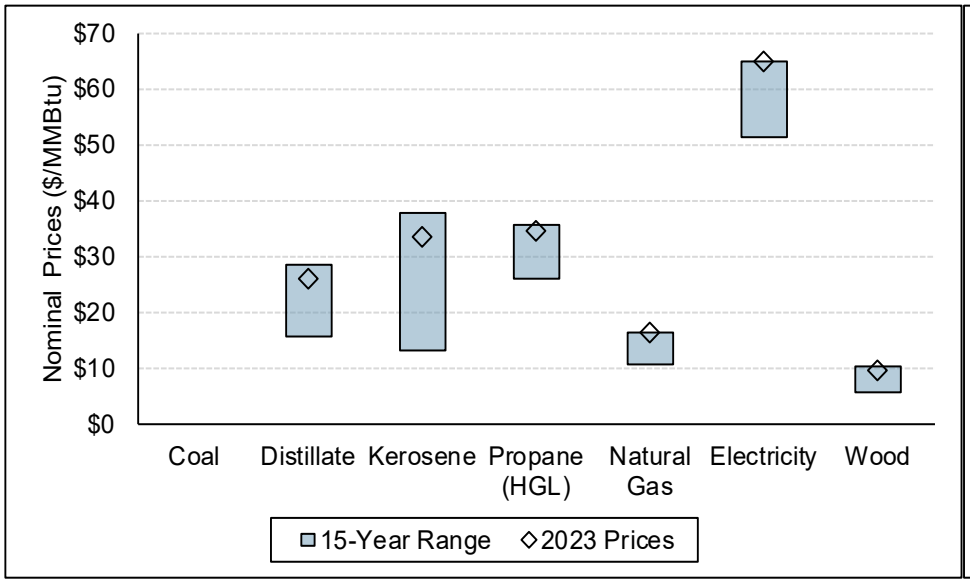
Estimated Out-of-state Energy Expenditures (Million Nominal Dollars)

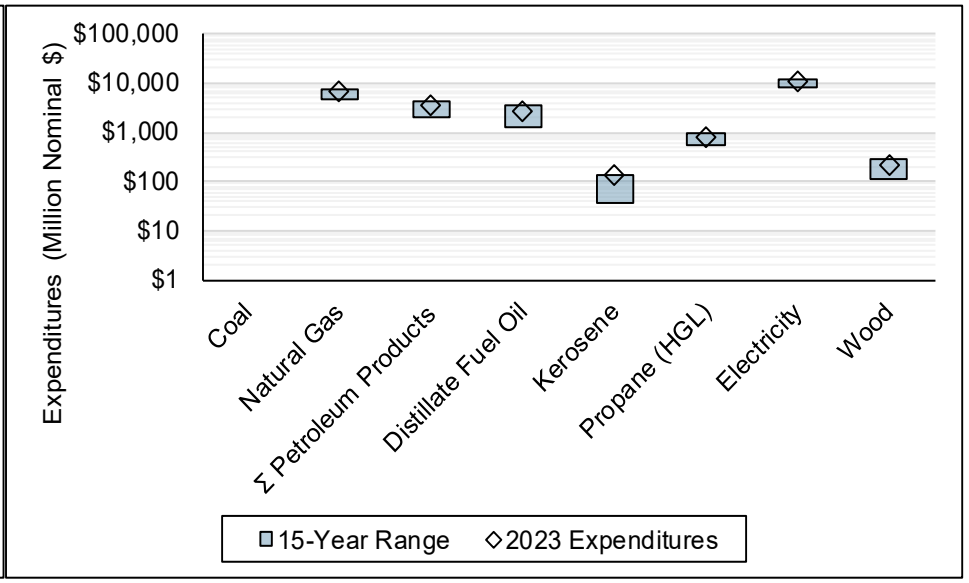
Year	Coal	Natural Gas	Motor Gasoline	Other Petroleum Products	Electricity	Total
2009	$83.07	$5,344.86	$9,939.71	$8,629.84	$6,366.89	$30,364.37
2010	$96.42	$5,018.96	$12,588.00	$11,017.95	$7,435.20	$36,156.52
2011	$104.83	$4,520.34	$15,569.67	$14,191.53	$7,095.81	$41,482.18
2012	$97.18	$3,820.54	$15,910.07	$14,285.71	$6,283.21	$40,396.71
2013	$80.07	$4,063.77	$15,248.90	$13,484.64	$7,013.61	$39,890.98
2014	$67.44	$4,935.29	$14,750.44	$12,625.17	$6,782.18	$39,160.52
2015	$65.89	$3,730.97	$9,576.59	$7,355.48	$5,409.69	$26,138.61
2016	$42.99	$2,997.08	$8,801.89	$5,956.39	$5,067.51	$22,865.86
2017	$46.07	$3,725.57	$10,299.70	$7,336.31	$5,435.71	$26,843.35
2018	$37.04	$4,646.67	$11,657.45	$9,809.83	$6,203.27	$32,354.26
2019	$25.84	$3,994.84	$10,422.60	$8,623.50	$4,875.54	$27,942.33
2020	$12.58	$3,143.79	$6,023.00	$4,042.98	$4,302.95	$17,525.31
2021	$15.34	$4,268.78	$11,301.41	$7,978.97	$6,741.33	$30,305.82
2022	$19.06	$6,283.80	$15,442.57	$16,105.98	$10,051.77	$47,903.18
2023	$36.58	$4,143.81	$13,536.37	$12,667.71	$6,406.13	$36,790.60
% Difference 2023–2022	91.9%	-34.1%	-12.3%	-21.3%	-36.3%	-23.2%

New York State Energy Profile—Residential Fuels Prices and Expenditures

Residential Energy Prices (Nominal $)

Year	Coal		Distillate Fuel Oil		Kerosene		Propane (HGL)		Natural Gas		Electricity		Wood	
	$/MMBtu	$/Ton	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	$/Mcf	$/MMBtu	$/MWh	$/MMBtu	$/Cord
2009			$18.93	260.56	$20.83	281.21	$28.36	259.02	$14.73	$15.10	$51.29	175.00	$6.45	$129.00
2010			$21.89	301.14	$23.77	320.90	$30.08	274.73	$13.72	$14.04	$54.93	187.42	$7.61	$152.20
2011			$25.83	355.22	$28.13	379.76	$33.78	308.52	$13.35	$13.64	$53.52	182.61	$9.15	$183.00
2012			$28.71	394.69	$29.62	399.87	$31.54	288.07	$12.56	$12.87	$51.63	176.16	$10.19	$203.80
2013			$28.28	388.78	$29.68	400.68	$31.25	285.42	$12.07	$12.41	$55.08	187.93	$9.98	$199.60
2014			$27.59	379.23	$29.84	402.84	$34.49	315.01	$12.13	$12.53	$58.83	200.73	$9.73	$194.60
2015			$19.28	264.87	$16.65	224.78	$27.53	251.44	$10.84	$11.25	$54.33	185.37	$6.71	$134.20
2016			$16.57	227.64	$13.27	179.15	$27.04	246.97	$10.51	$10.92	$51.51	175.75	$5.73	$114.60
2017			$18.43	252.62	$16.60	224.10	$32.05	293.10	$11.66	$12.09	$52.84	180.29	$6.41	$128.20
2018			$20.30	278.88	$23.47	316.85	$34.88	318.99	$11.98	$12.44	$54.28	185.20	$7.09	$141.80
2019			$19.25	264.46	$22.39	302.27	$30.00	274.36	$12.22	$12.71	$52.58	179.40	$6.82	$136.40
2020			$15.75	216.38	$14.54	196.29	$26.18	239.42	$12.38	$12.86	$53.82	183.63	$5.64	$112.80
2021			$18.59	255.39	$22.93	309.56	$31.74	290.27	$13.35	$13.87	$57.10	194.83	$6.77	$135.40
2022			$28.13	386.45	$37.92	511.92	$35.68	326.30	$15.83	$16.43	$64.71	220.79	$10.47	$209.40
2023			$26.22	360.21	$33.68	454.68	$34.47	315.24	$16.37	$16.99	$65.20	222.46	$9.58	$191.60
% Difference 2023–2022	N/A	N/A	-6.8%	-6.8%	-11.2%	-11.2%	-3.4%	-3.4%	3.4%	3.4%	0.8%	0.8%	-8.5%	-8.5%

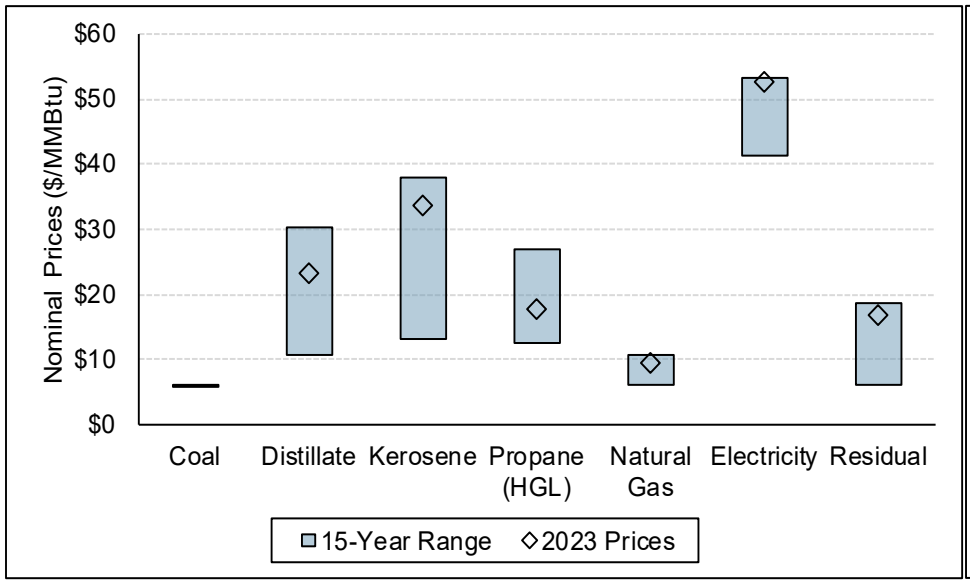


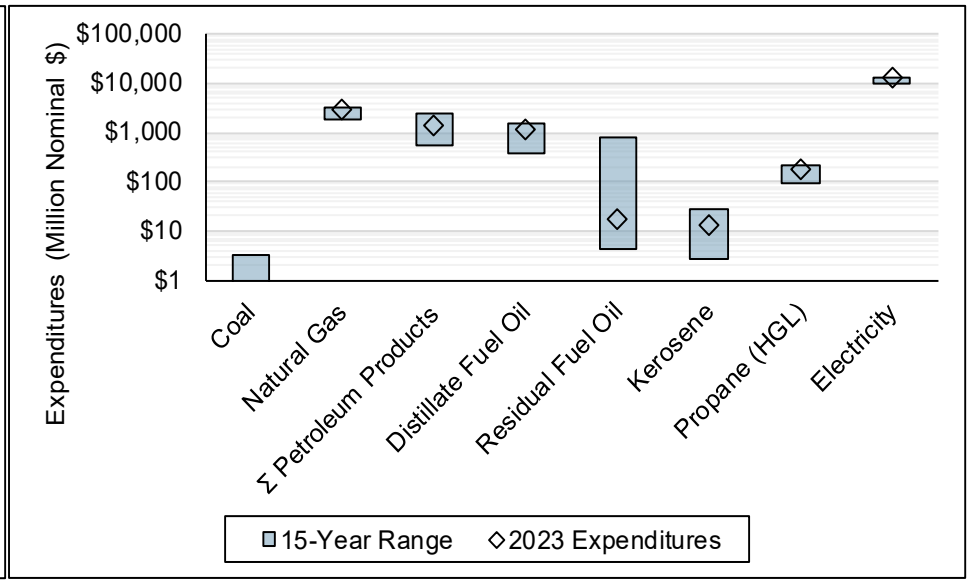


New York State Energy Profile—Commercial Fuels Prices and Expenditures

Commercial Energy Prices (Nominal $)

Year	Coal		Distillate Fuel Oil		Kerosene		Propane (HGL)		Natural Gas		Electricity		Residual Fuel Oil	
	$/MMBtu	$/Ton	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	$/Mcf	$/MMBtu	$/MWh	$/MMBtu	¢/Gal
2009	$5.80	$132.54	$15.03	206.88	$20.83	281.21	$20.59	188.06	$10.49	$10.75	$45.36	154.77	$9.94	62.49
2010	$5.91	$133.63	$18.51	254.64	$23.77	320.90	$23.59	215.46	$10.63	$10.87	$47.79	163.06	$12.90	81.10
2011	$5.78	$127.73	$24.75	340.37	$28.13	379.76	$26.90	245.69	$9.08	$9.28	$46.33	158.08	$17.41	109.46
2012			$25.80	354.69	$29.62	399.87	$21.33	194.81	$7.60	$7.79	$44.13	150.57	$18.36	115.43
2013			$25.05	344.38	$29.68	400.68	$21.01	191.89	$7.73	$7.95	$45.00	153.54	$16.84	105.87
2014			$21.81	299.78	$29.84	402.84	$22.22	202.94	$8.04	$8.31	$47.25	161.22	$14.75	92.73
2015			$14.51	199.34	$16.65	224.78	$13.40	122.39	$6.64	$6.89	$44.86	153.06	$7.83	49.23
2016			$11.47	157.58	$13.27	179.15	$12.60	115.08	$6.00	$6.23	$42.35	144.50	$6.10	38.35
2017			$13.66	187.24	$16.60	224.10	$16.48	150.71	$6.65	$6.90	$43.23	147.50	$7.80	49.04
2018			$17.09	234.78	$23.47	316.85	$17.93	163.97	$7.13	$7.40	$42.50	145.01	$10.26	64.50
2019			$15.74	216.24	$22.39	302.27	$14.29	130.69	$6.98	$7.26	$41.20	140.57	$9.78	61.49
2020			$10.61	145.76	$14.54	196.29	$13.52	123.64	$6.66	$6.92	$42.67	145.59	$7.72	48.54
2021			$17.03	233.96	$22.93	309.56	$20.71	189.40	$7.66	$7.96	$47.11	160.74	$11.49	72.24
2022			$30.23	415.30	$37.92	511.92	$21.98	201.01	$9.99	$10.37	$53.31	181.89	$18.59	116.88
2023			$23.17	318.31	$33.68	454.68	$17.79	162.69	$9.34	$9.69	$52.80	180.15	$16.81	105.68
% Difference 2023–2022	N/A	N/A	-23.4%	-23.4%	-11.2%	-11.2%	-19.1%	-19.1%	-6.5%	-6.5%	-1.0%	-1.0%	-9.6%	-9.6%

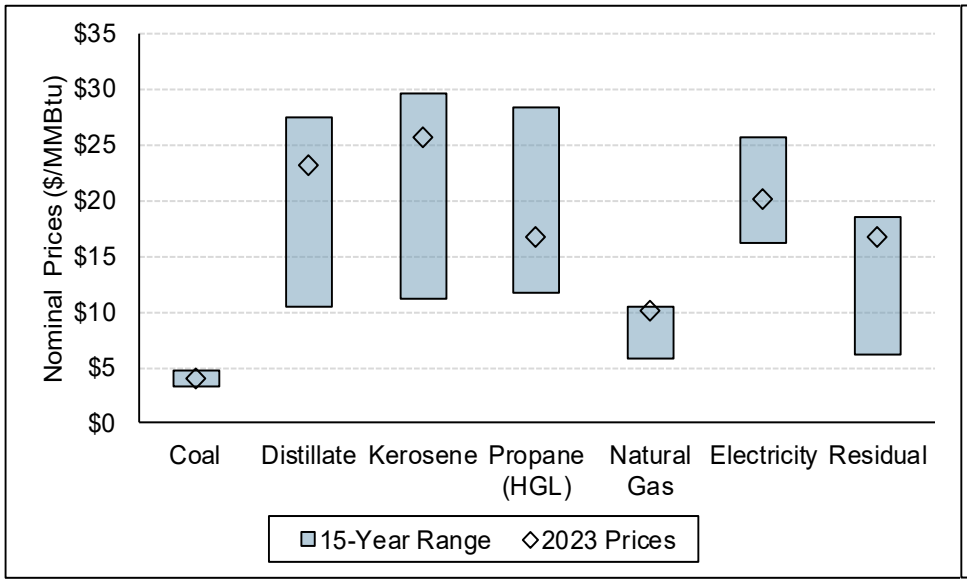


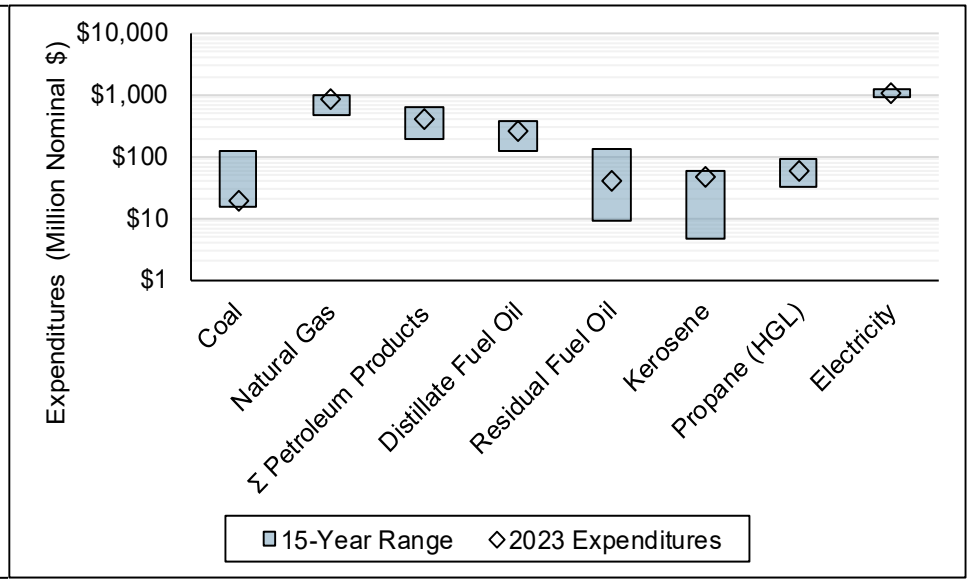


New York State Energy Profile—Industrial Fuels Prices and Expenditures

Industrial Energy Prices (Nominal $)

Year	Coal		Distillate Fuel Oil		Kerosene		Propane (HGL)		Natural Gas		Electricity		Residual Fuel Oil	
	$/MMBtu	$/Ton	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	$/Mcf	$/MMBtu	$/MWh	$/MMBtu	¢/Gal
2009	$4.01	$96.55	$14.37	197.79	$15.14	204.39	$24.91	227.51	$9.32	$9.55	$24.54	83.73	$9.94	62.49
2010	$4.44	$106.87	$19.17	263.72	$18.61	251.24	$24.66	225.23	$8.35	$8.54	$25.76	87.89	$12.90	81.10
2011	$4.74	$113.44	$23.61	324.69	$24.56	331.56	$28.47	260.03	$7.97	$8.15	$22.96	78.34	$17.41	109.46
2012	$4.73	$118.45	$24.89	342.18	$25.67	346.55	$21.95	200.48	$6.70	$6.87	$19.62	66.94	$18.36	115.43
2013	$4.37	$109.92	$24.20	332.69	$26.03	351.41	$21.57	197.01	$7.19	$7.39	$19.30	65.85	$16.84	105.87
2014	$4.24	$105.96	$22.79	313.25	$24.64	332.64	$22.99	209.98	$7.87	$8.13	$19.28	65.78	$14.75	92.73
2015	$4.02	$100.07	$15.05	206.76	$14.41	194.54	$12.65	115.54	$6.41	$6.65	$18.49	63.09	$7.83	49.23
2016	$3.60	$89.39	$11.28	154.97	$11.28	152.28	$11.71	106.95	$5.74	$5.96	$17.67	60.29	$6.10	38.35
2017	$4.08	$100.93	$14.71	201.63	$14.29	192.92	$15.65	143.12	$6.98	$7.24	$17.36	59.23	$7.80	49.04
2018	$4.48	$110.54	$17.33	238.08	$17.92	241.92	$17.08	156.20	$7.58	$7.87	$17.64	60.19	$10.26	64.50
2019	$3.42	$84.39	$14.67	201.54	$16.96	228.96	$13.42	122.73	$7.46	$7.76	$16.45	56.13	$9.78	61.49
2020	$3.67	$90.18	$10.47	143.84	$12.53	169.16	$12.64	115.60	$6.77	$7.03	$16.25	55.45	$7.72	48.54
2021	$3.36	$82.73	$14.39	197.69	$16.61	224.24	$19.77	180.80	$8.12	$8.44	$18.59	63.43	$11.49	72.24
2022	$3.65	$89.53	$27.52	378.07	$29.72	401.22	$20.98	191.87	$10.54	$10.94	$22.13	75.51	$18.59	116.88
2023	$4.10	$101.17	$23.13	317.76	$25.69	346.82	$16.76	153.27	$10.08	$10.46	$20.13	68.68	$16.81	105.68
% Difference 2023–2022	12.3%	13.0%	-16.0%	-16.0%	-13.6%	-13.6%	-20.1%	-20.1%	-4.4%	-4.4%	-9.0%	-9.0%	-9.6%	-9.6%

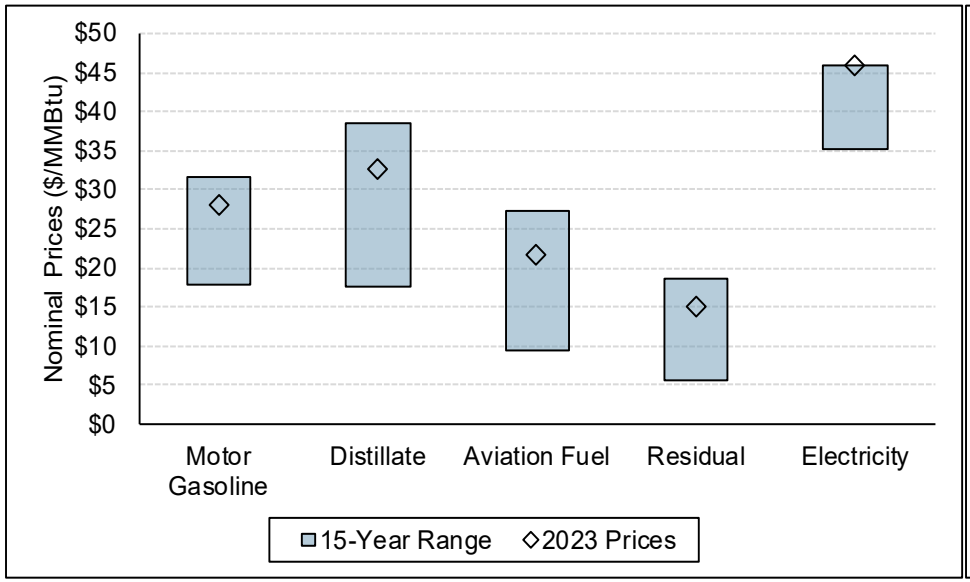


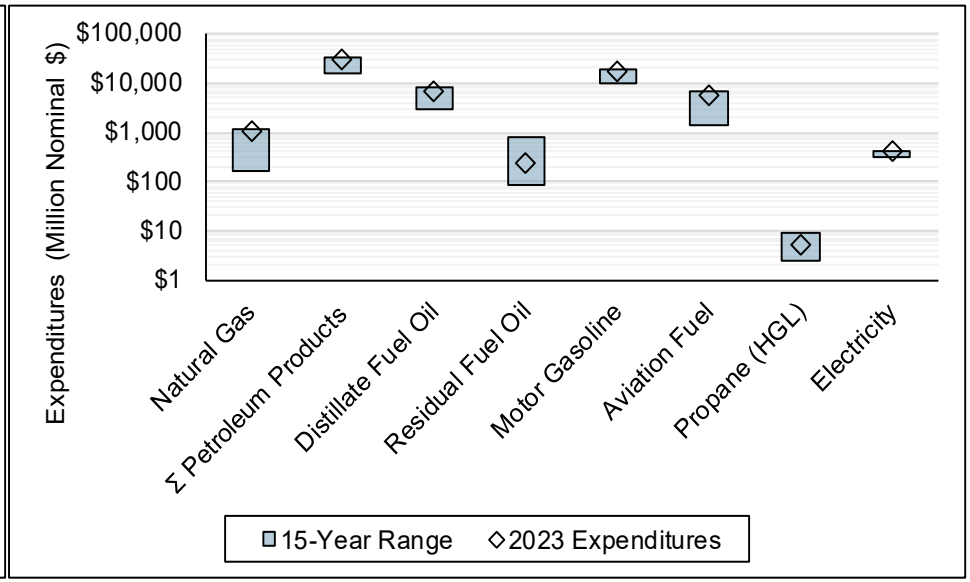


New York State Energy Profile—Transportation Fuels Prices and Expenditures

Transportation Energy Prices (Nominal $)

Year	Motor Gasoline		Distillate Fuel Oil		Aviation Fuel		Residual Fuel Oil		Electricity	
	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	¢/Gal	$/MMBtu	$/MWh
2009	$19.41	235.74	$18.27	251.47	$12.64	170.64	$8.24	51.80	$38.49	131.33
2010	$22.98	277.84	$22.32	307.06	$16.43	221.81	$10.86	68.28	$40.28	137.44
2011	$29.16	351.86	$28.52	392.22	$22.77	307.40	$14.81	93.11	$39.41	134.47
2012	$30.20	364.05	$29.45	404.87	$23.16	312.66	$15.40	96.82	$41.63	142.04
2013	$29.43	354.70	$28.83	396.34	$22.15	299.03	$15.52	97.57	$40.01	136.51
2014	$28.37	341.79	$28.66	393.94	$20.61	278.24	$13.19	82.93	$40.49	138.15
2015	$20.47	246.61	$21.04	289.05	$11.99	161.87	$7.46	46.90	$37.97	129.55
2016	$18.13	218.38	$17.54	240.97	$9.49	128.12	$5.60	35.21	$35.33	120.55
2017	$20.12	242.06	$20.31	278.39	$12.21	164.84	$7.55	47.47	$37.12	126.65
2018	$22.23	267.50	$24.18	332.19	$16.00	216.00	$9.99	62.81	$35.57	121.36
2019	$20.97	252.24	$23.50	322.85	$14.77	199.40	$10.00	62.87	$36.00	122.83
2020	$17.86	214.83	$20.20	277.51	$10.04	135.54	$7.29	45.83	$35.57	121.36
2021	$23.87	287.01	$24.66	338.78	$14.70	198.45	$10.97	68.97	$37.13	126.69
2022	$31.56	379.40	$38.47	528.50	$27.35	369.23	$18.65	117.25	$40.55	138.36
2023	$28.14	338.28	$32.64	448.41	$21.69	292.82	$15.02	94.43	$46.00	156.95
% Difference 2023–2022	-10.8%	-10.8%	-15.2%	-15.2%	-20.7%	-20.7%	-19.5%	-19.5%	13.4%	13.4%





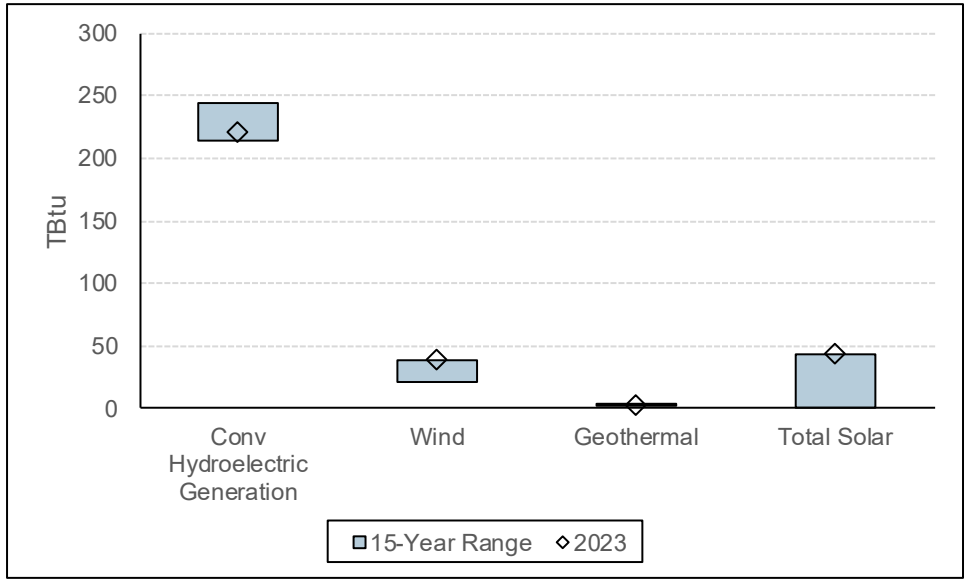
New York State Energy Profile—Renewables

Renewables 15-Year Consumption Summary

Year	Conventional Hydroelectric Generation		Wind		Geothermal[2,3]	Renewable Diesel[3]		Solar (Electric Sector Generation)		Solar (Distributed GWh)		Total Solar (GWh)		
	TBtu[1,2]	GWh[1]	TBtu[1,2]	GWh[1]	TBtu	TBtu	Mbbl	TBtu[1,2]	GWh[1]	NYISO	USEIA	NYISO	USEIA	NYGATS
2009	239.1 [90.1]	26,420.0	20.5 [7.7]	2,266.3	2.5 [1]			0 [0]	0.0	38	33	38.1	33	
2010	217.4 [82.6]	24,214.0	23.3 [8.9]	2,596.2	2.8 [1.1]			0 [0]	0.0	70	56	69.6	56	
2011	244.3 [94.3]	27,634.1	25 [9.6]	2,828.1	3.3 [1.3]			0.06 [0.02]	6.5	104	86	110.3	92	
2012	213.8 [83.8]	24,572.3	26 [10.2]	2,991.6	3 [1.2]			0.46 [0.18]	53.1	160	149	213.4	202	
2013	218.2 [87.5]	25,631.0	30.1 [12.1]	3,539.5	3 [1.2]			0.44 [0.18]	51.8	261	207	313.3	274	
2014	217.2 [88.6]	25,974.0	33.3 [13.6]	3,985.8	2.9 [1.2]			0.43 [0.17]	51.0	426	350	476.8	421	
2015	214.4 [88.3]	25,879.4	33 [13.6]	3,983.8	2.9 [1.2]			0.43 [0.18]	52.3	707	591	759.2	689	
2016	216.7 [89.8]	26,314.1	32.5 [13.5]	3,943.3	2.9 [1.2]			0.44 [0.18]	53.7	1,031	877	1,085.2	1,014	924.1
2017	240.1 [100.8]	29,554.2	34.3 [14.4]	4,219.2	2.8 [1.2]			0.38 [0.16]	47.3	1,349	1,186	1,396.8	1,364	1,045.5
2018	234.3 [99.1]	29,045.0	32.1 [13.6]	3,985.1	2.8 [1.2]	0.1	26.0	0.39 [0.17]	48.8	1,768	1,501	1,816.8	1,795	1,574.9
2019	238 [102.8]	30,141.3	35.2 [15.2]	4,453.6	2.7 [1.2]			0.41 [0.18]	52.1	2,208	1,868	2,260.1	2,375	2,196.2
2020	231.8 [100.7]	29,521.0	32.7 [14.2]	4,163.0	2.7 [1.2]			0.38 [0.16]	48.0	2,631	2,308	2,679.0	3,130	2,616.9
2021	223.4 [97.8]	28,674.7	32 [14]	4,110.7	2.7 [1.2]			0.39 [0.17]	49.8	3,545	2,719	3,594.8	3,862	3,439.3
2022	214.4 [93.3]	27,354.3	37.8 [16.5]	4,825.1	2.7 [1.2]			0.87 [0.38]	110.4	4,635	3,492	4,745.4	5,257	4,239.2
2023	220.8 [95.3]	27,935.0	38.7 [16.7]	4,892.5	2.7 [1.2]			1.8 [0.8]	229.9	5,329	3,986	5,558.9	6,204	4,993.4
% Difference 2023–2022	3.0%	2.1%	2.3%	1.4%	0.9%	N/A	N/A	110.0%	108.2%	15.0%	14.1%	17.1%	18.0%	17.8%

Notes:

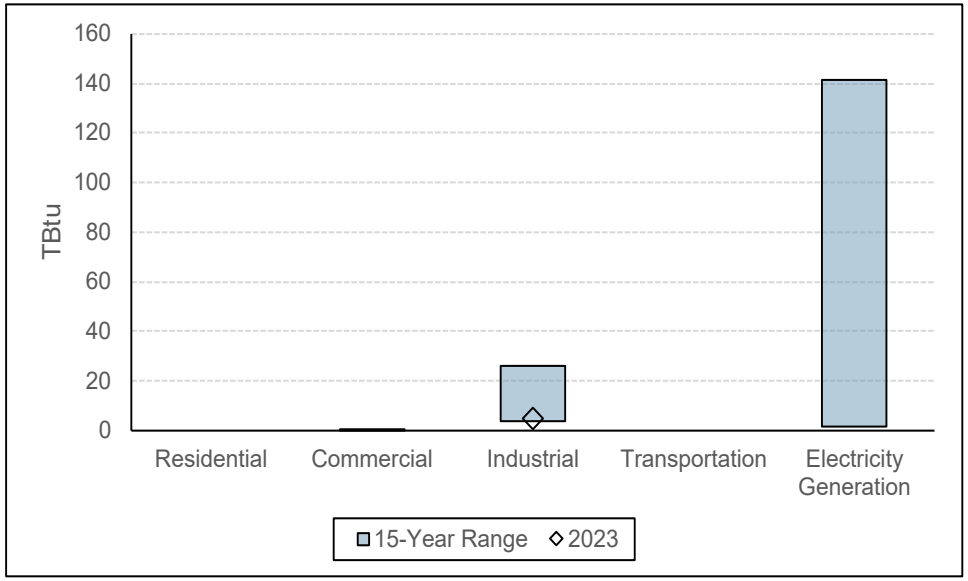
1. Source data from NYISO Gold Book(s) (NYISO, 2023).
2. Conversions utilized are presented as fossil fuel equivalency method. Captured energy method is bracketed. Graphics present Fossil Fuel Equivalency method.
3. Source is EIA SEDS with conversions presented by NYSERDA.
4. NYGATS = New York Generation Attribute Tracking System



New York State Energy Profile—Coal

Coal 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mtons	TBtu	Mtons	TBtu	Mtons	TBtu	Mtons	TBtu	Mtons
2009			0.6	22.0	23.6	902.0			131.8	6,108.0
2010			0.1	3.0	25.4	979.0			141.6	6,384.0
2011			0.1	4.0	25.9	1,008.0			99.2	4,591.0
2012					24.2	909.0			48.7	2,228.0
2013					21.6	816.0			47.2	2,225.0
2014					18.7	714.0			45.9	2,154.0
2015					19.3	723.0			22.0	1,038.0
2016					14.0	521.0			15.6	654.0
2017					13.3	496.0			6.3	242.0
2018					9.7	364.0			7.0	272.0
2019					8.9	349.0			4.8	187.0
2020					4.0	158.0			1.6	64.0
2021					5.4	211.0				
2022					6.1	241.0				
2023					4.8	191.0				
% Difference 2023–2022	N/A	N/A	N/A	N/A	-21.5%	-20.7%	N/A	N/A	N/A	N/A



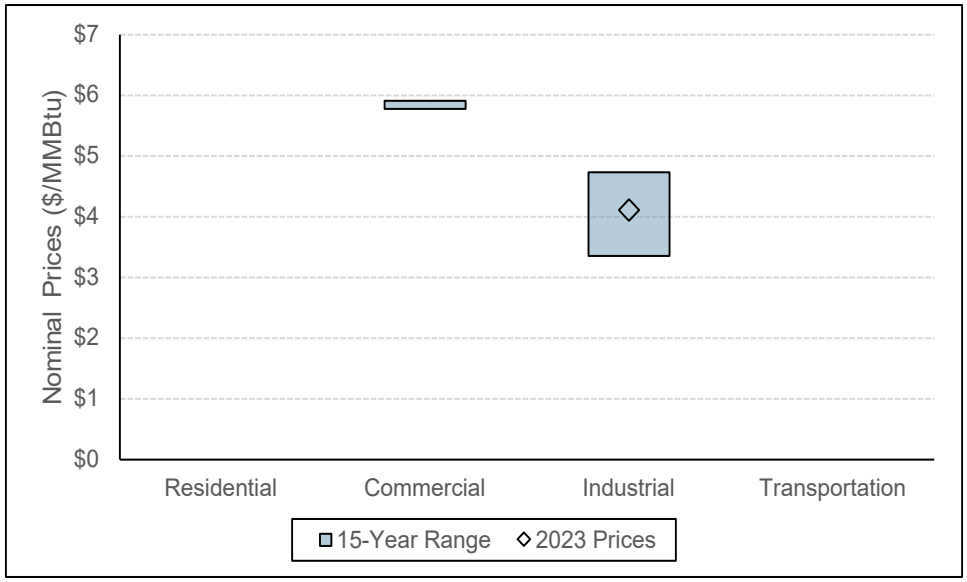
New York State Energy Profile—Coal

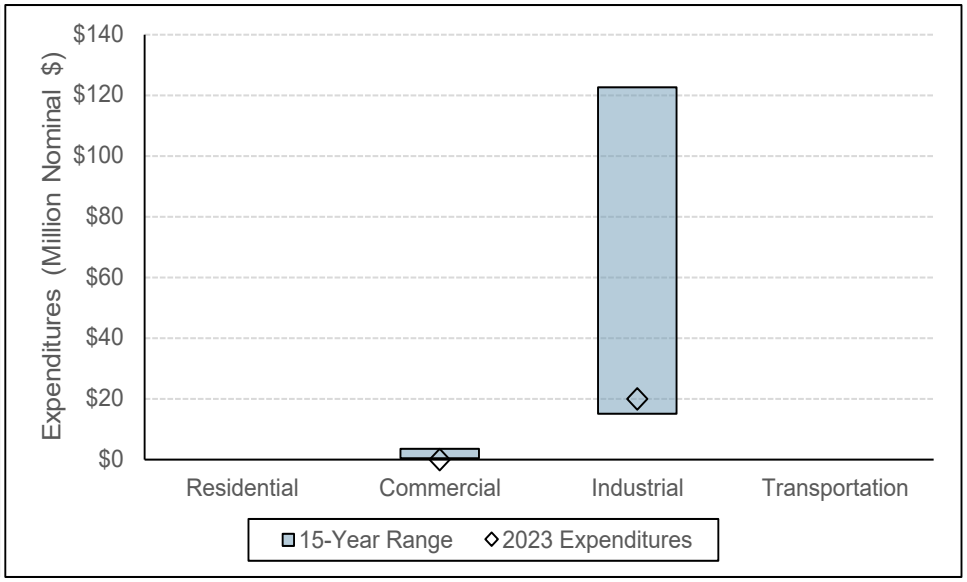
Coal 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009		$5.80	$4.01	
2010		$5.91	$4.44	
2011		$5.78	$4.74	
2012			$4.73	
2013			$4.37	
2014			$4.24	
2015			$4.02	
2016			$3.60	
2017			$4.08	
2018			$4.48	
2019			$3.42	
2020			$3.67	
2021			$3.36	
2022			$3.65	
2023			$4.10	
% Difference 2023–2022	N/A	N/A	12.3%	N/A

Coal 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009		$3.20	$94.53	
2010		$0.46	$112.98	
2011		$0.63	$122.70	
2012			$114.33	
2013			$94.20	
2014			$79.34	
2015			$77.52	
2016			$50.57	
2017			$54.19	
2018			$43.57	
2019			$30.40	
2020			$14.80	
2021			$18.04	
2022			$22.42	
2023			$19.77	
% Difference 2023–2022	N/A	N/A	-11.8%	N/A

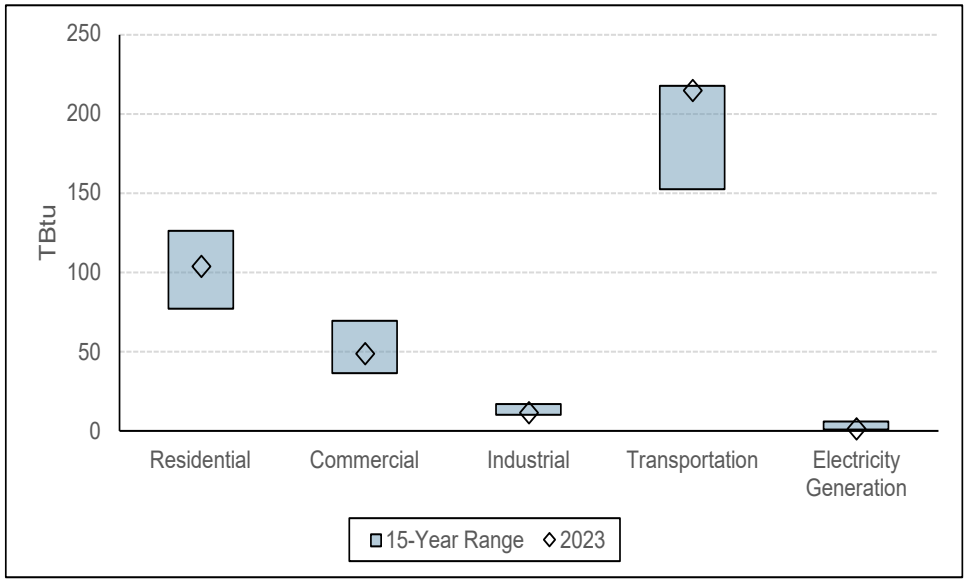




New York State Energy Profile—Distillate Fuel Oil

Distillate Fuel Oil 15-Year Consumption Summary by Sector (Excluding Biodiesel and Renewable Diesel)

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
2009	119.9 (119.9)	20,755 (20,755)	69.7 (69.7)	12,062 (12,062)	16.9 (16.9)	2,931 (2,931)	159.8 (158.7)	27,670 (27,462)	4.3 (4.3)	736 (736)
2010	114.2 (114.2)	19,781 (19,781)	58 (58)	10,050 (10,050)	13.1 (13.1)	2,274 (2,274)	163.1 (162.2)	28,245 (28,077)	3.7 (3.7)	637 (637)
2011	106.5 (106.5)	18,454 (18,454)	59.5 (59.5)	10,310 (10,310)	16.2 (16.2)	2,809 (2,809)	164.6 (161.5)	28,534 (27,963)	1.9 (1.9)	331 (331)
2012	126.5 (126.5)	21,943 (21,943)	49.6 (49.6)	8,602 (8,602)	14.4 (14.4)	2,502 (2,502)	159.1 (156.1)	27,591 (27,039)	2.3 (2.3)	392 (392)
2013	105 (103.6)	18,199 (17,944)	53.2 (52.5)	9,223 (9,094)	13.1 (13.1)	2,274 (2,274)	152 (147.2)	26,395 (25,497)	2.9 (2.9)	503 (503)
2014	113.5 (112)	19,682 (19,407)	48.6 (48)	8,434 (8,316)	11.5 (11.5)	2,001 (2,001)	161.6 (157)	28,052 (27,191)	4.8 (4.8)	833 (833)
2015	121.9 (120.3)	21,140 (20,844)	55.6 (54.8)	9,634 (9,499)	11.7 (11.7)	2,031 (2,031)	169 (164.3)	29,331 (28,454)	4.8 (4.8)	835 (835)
2016	89.5 (88.3)	15,511 (15,294)	46.7 (46.1)	8,095 (7,981)	10.8 (10.8)	1,872 (1,872)	180.8 (173.2)	31,420 (30,004)	2 (2)	344 (344)
2017	83.7 (82.6)	14,519 (14,315)	45.8 (45.2)	7,935 (7,824)	11 (11)	1,904 (1,904)	182.2 (175.2)	31,659 (30,354)	1.5 (1.5)	264 (264)
2018	107.6 (104.1)	18,696 (18,041)	46.7 (45.2)	8,111 (7,827)	11.2 (11.2)	1,953 (1,953)	194.3 (188)	33,748 (32,569)	4.5 (4.5)	790 (790)
2019	105.6 (102.2)	18,350 (17,707)	48.1 (46.6)	8,364 (8,071)	14.7 (14.7)	2,544 (2,544)	181.4 (176.5)	31,501 (30,581)	2.2 (2.2)	382 (382)
2020	77.7 (75.1)	13,495 (13,023)	37 (35.8)	6,437 (6,212)	13.4 (13.4)	2,330 (2,330)	168.5 (163.4)	29,277 (28,318)	1 (1)	180 (180)
2021	104.2 (100.8)	18,096 (17,475)	49.6 (48)	8,622 (8,326)	11.8 (11.8)	2,039 (2,039)	192.3 (187.6)	33,387 (32,517)	1.2 (1.2)	208 (208)
2022	105.9 (101.9)	18,416 (17,652)	49.8 (47.9)	8,662 (8,302)	11.9 (11.9)	2,061 (2,061)	217.4 (212.5)	37,735 (36,827)	6.1 (6.1)	1,058 (1,058)
2023	103.3 (98.7)	17,968 (17,097)	48.6 (46.4)	8,446 (8,037)	11.6 (11.6)	2,012 (2,012)	213.8 (207.2)	37,137 (35,908)	0.9 (0.9)	160 (160)
% Difference 2023–2022	-2.5%	-2.4%	-2.5%	-2.5%	-2.4%	-2.4%	-1.6%	-1.6%	-84.9%	-84.9%



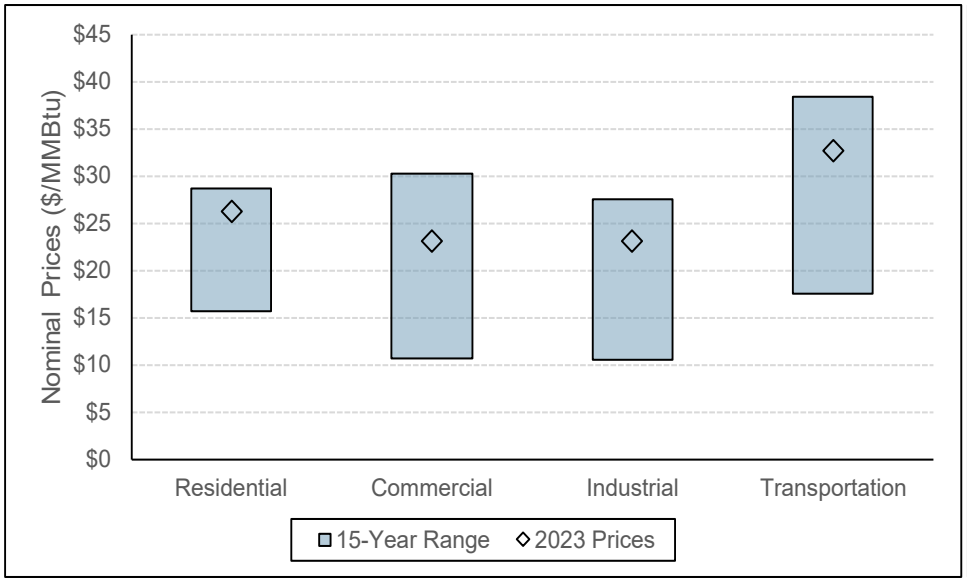
New York State Energy Profile—Distillate Fuel Oil

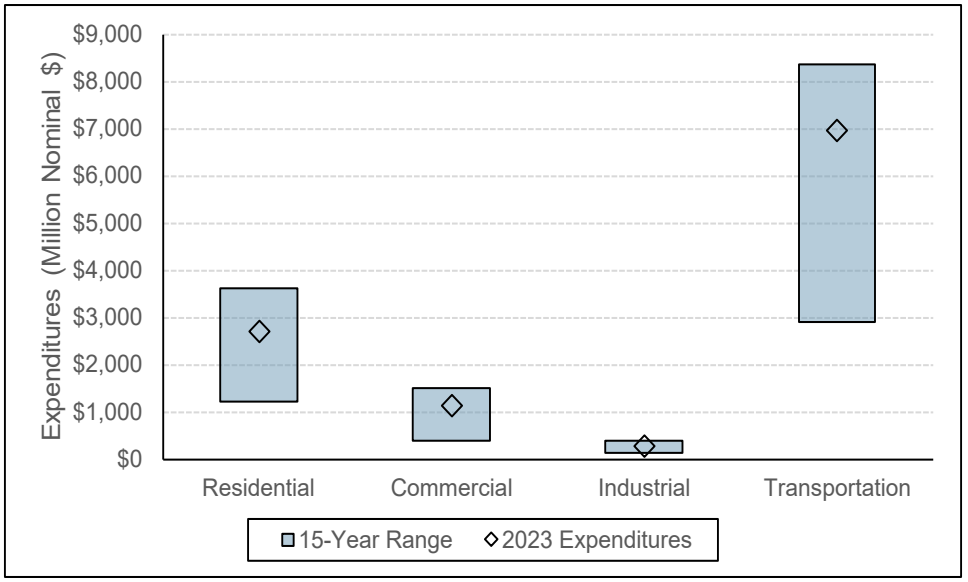
Distillate Fuel Oil 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009	$18.93	$15.03	$14.37	$18.27
2010	$21.89	$18.51	$19.17	$22.32
2011	$25.83	$24.75	$23.61	$28.52
2012	$28.71	$25.80	$24.89	$29.45
2013	$28.28	$25.05	$24.20	$28.83
2014	$27.59	$21.81	$22.79	$28.66
2015	$19.28	$14.51	$15.05	$21.04
2016	$16.57	$11.47	$11.28	$17.54
2017	$18.43	$13.66	$14.71	$20.31
2018	$20.30	$17.09	$17.33	$24.18
2019	$19.25	$15.74	$14.67	$23.50
2020	$15.75	$10.61	$10.47	$20.20
2021	$18.59	$17.03	$14.39	$24.66
2022	$28.13	$30.23	$27.52	$38.47
2023	$26.22	$23.17	$23.13	$32.64
% Difference 2023–2022	-6.8%	-23.4%	-16.0%	-15.2%

Distillate Fuel Oil 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009	$2,269.78	$1,047.32	$243.28	$2,919.98
2010	$2,500.63	$1,074.28	$251.80	$3,640.50
2011	$2,750.43	$1,472.35	$382.65	$4,693.76
2012	$3,633.05	$1,279.91	$359.11	$4,684.96
2013	$2,968.69	$1,332.66	$317.14	$4,383.08
2014	$3,131.77	$1,060.82	$262.84	$4,631.14
2015	$2,350.64	$806.16	$176.10	$3,554.98
2016	$1,482.27	$535.47	$121.58	$3,171.25
2017	$1,542.92	$625.00	$161.24	$3,700.36
2018	$2,185.11	$798.10	$194.93	$4,698.59
2019	$2,033.40	$757.85	$214.93	$4,263.23
2020	$1,223.32	$393.08	$140.40	$3,404.35
2021	$1,936.26	$845.16	$169.14	$4,741.80
2022	$2,980.20	$1,506.36	$326.99	$8,361.69
2023	$2,708.97	$1,125.30	$268.24	$6,977.62
% Difference 2023–2022	-9.1%	-25.3%	-18.0%	-16.6%

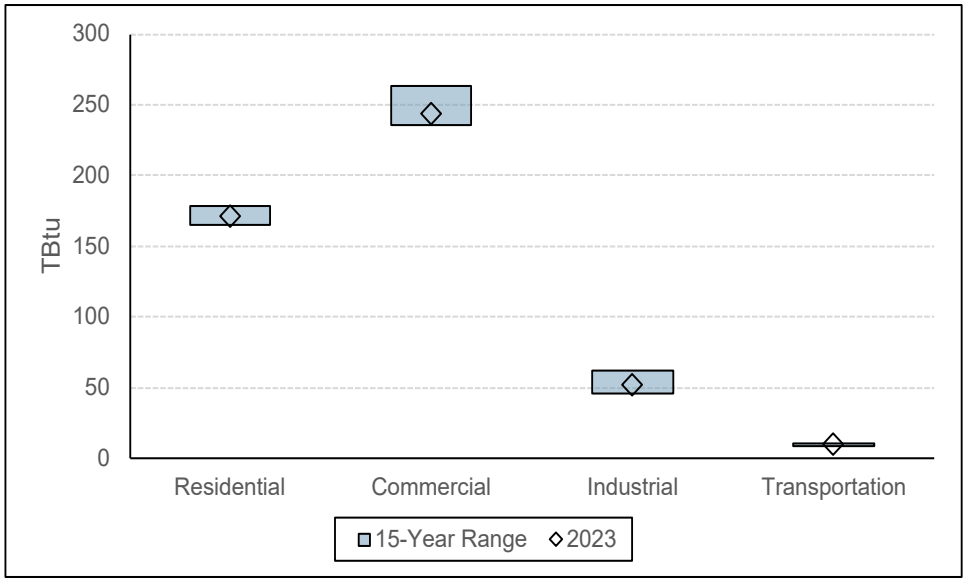




New York State Energy Profile—Electricity

Electricity 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation	
	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu	GWh
2009	164.6	48,246.0	257.1	75,347.0	45.8	13,417.0	10.3	3,025.0
2010	173.8	50,946.0	263.7	77,276.0	46.0	13,480.0	10.0	2,922.0
2011	174.8	51,240.0	260.7	76,406.0	45.8	13,420.0	10.2	2,981.0
2012	173.0	50,692.0	259.4	76,018.0	46.8	13,705.0	9.4	2,748.0
2013	173.3	50,777.0	260.5	76,342.0	61.1	17,911.0	9.8	2,864.0
2014	170.5	49,975.0	261.2	76,541.0	61.4	18,003.0	9.7	2,853.0
2015	174.1	51,013.0	262.7	77,006.0	61.7	18,079.0	9.6	2,816.0
2016	173.4	50,831.0	261.0	76,507.0	60.4	17,709.0	9.4	2,756.0
2017	167.5	49,081.0	257.0	75,333.0	60.8	17,811.0	9.4	2,767.0
2018	177.9	52,153.0	261.9	76,745.0	61.7	18,077.0	10.1	2,954.0
2019	171.1	50,141.0	256.2	75,091.0	59.9	17,548.0	9.6	2,820.0
2020	178.3	52,257.0	235.4	68,989.0	56.7	16,610.0	8.7	2,550.0
2021	178.0	52,157.0	238.6	69,920.0	57.6	16,891.0	8.4	2,455.0
2022	178.2	52,227.0	246.4	72,206.0	55.2	16,178.0	8.9	2,600.0
2023	171.0	50,113.0	243.7	71,422.0	51.8	15,174.0	9.3	2,713.0
% Difference 2023–2022	-4.0%	-4.0%	-1.1%	-1.1%	-6.2%	-6.2%	4.4%	4.3%



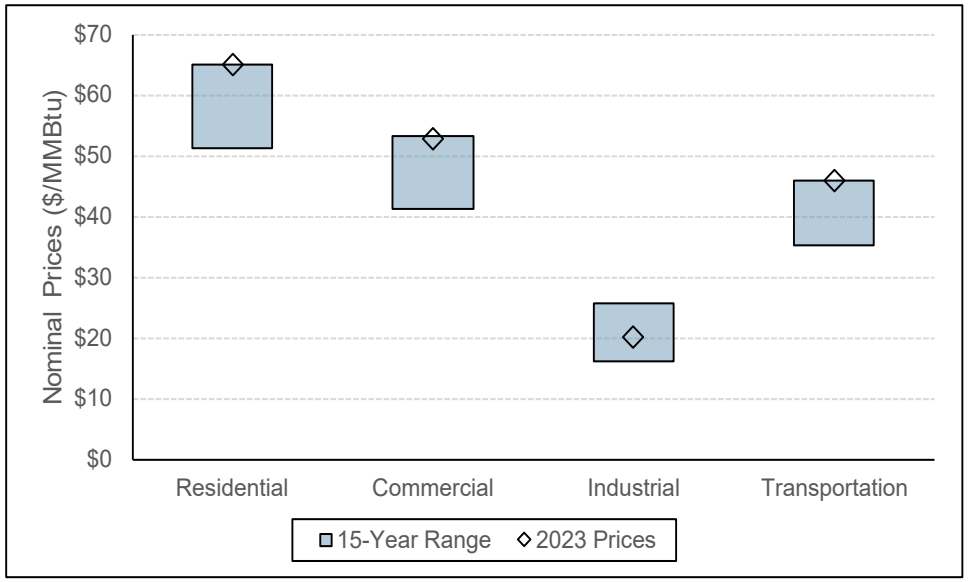
New York State Energy Profile—Electricity

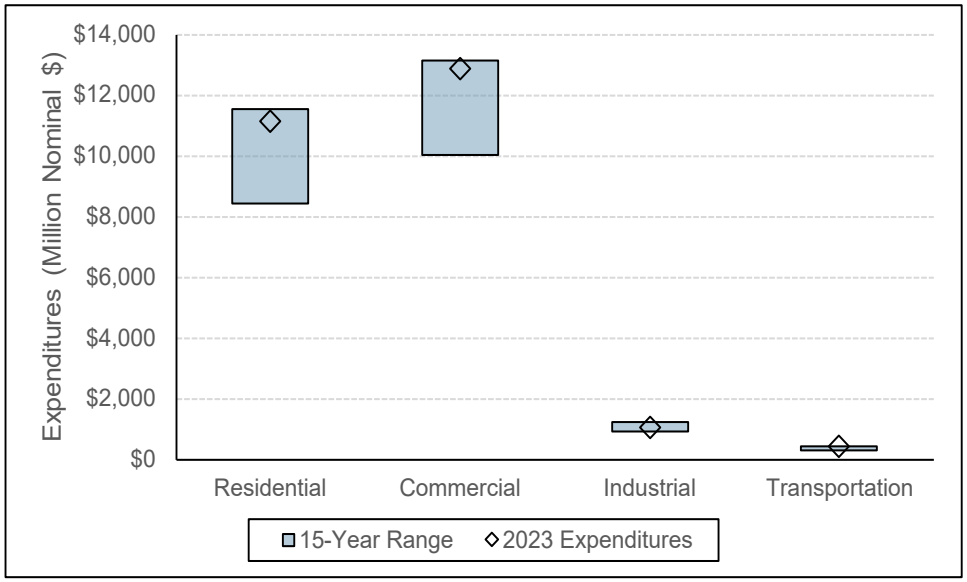
Electricity 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009	$51.29	$45.36	$24.54	$38.49
2010	$54.93	$47.79	$25.76	$40.28
2011	$53.52	$46.33	$22.96	$39.41
2012	$51.63	$44.13	$19.62	$41.63
2013	$55.08	$45.00	$19.30	$40.01
2014	$58.83	$47.25	$19.28	$40.49
2015	$54.33	$44.86	$18.49	$37.97
2016	$51.51	$42.35	$17.67	$35.33
2017	$52.84	$43.23	$17.36	$37.12
2018	$54.28	$42.50	$17.64	$35.57
2019	$52.58	$41.20	$16.45	$36.00
2020	$53.82	$42.67	$16.25	$35.57
2021	$57.10	$47.11	$18.59	$37.13
2022	$64.71	$53.31	$22.13	$40.55
2023	$65.20	$52.80	$20.13	$46.00
% Difference 2023–2022	0.8%	-1.0%	-9.0%	13.4%

Electricity 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009	$8,443.10	$11,661.33	$1,123.37	$397.26
2010	$9,548.32	$12,600.55	$1,184.83	$401.55
2011	$9,356.90	$12,078.09	$1,051.34	$400.84
2012	$8,929.87	$11,446.13	$917.49	$390.32
2013	$9,542.72	$11,721.60	$1,179.46	$391.06
2014	$10,031.34	$12,339.67	$1,184.29	$394.17
2015	$9,456.41	$11,786.65	$1,140.57	$364.82
2016	$8,933.69	$11,055.13	$1,067.69	$332.17
2017	$8,848.80	$11,111.75	$1,055.02	$350.41
2018	$9,658.96	$11,128.88	$1,088.00	$358.55
2019	$8,995.44	$10,555.85	$984.94	$346.39
2020	$9,596.16	$10,044.09	$920.97	$309.49
2021	$10,161.46	$11,238.99	$1,071.40	$311.04
2022	$11,531.32	$13,133.72	$1,221.55	$359.68
2023	$11,148.29	$12,866.94	$1,042.17	$425.82
% Difference 2023–2022	-3.3%	-2.0%	-14.7%	18.4%

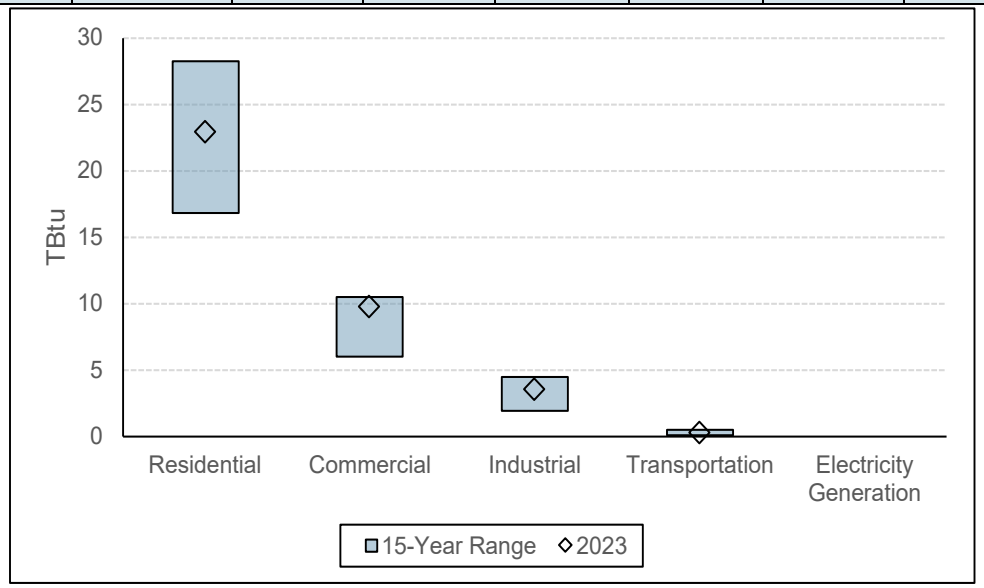




New York State Energy Profile—Propane (HGL)

Propane (HGL) 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
2009	22.8	5,940	6.6	1,724	1.9	583	0.4	97		
2010	22.2	5,781	6.6	1,718	2.3	611	0.1	29		
2011	19.8	5,146	6.9	1,797	2.8	718	0.1	27		
2012	16.8	4,381	6.0	1,558	3.5	903	0.1	28		
2013	19.4	5,051	6.5	1,693	3.4	875	0.1	38		
2014	24.8	6,463	6.8	1,776	3.6	950	0.2	41		
2015	22.5	5,849	7.3	1,892	3.1	817	0.2	51		
2016	21.2	5,529	7.9	2,061	3.3	868	0.2	59		
2017	21.9	5,698	7.8	2,023	2.3	608	0.5	131		
2018	27.3	7,098	8.1	2,118	2.6	665	0.3	71		
2019	28.3	7,361	8.4	2,200	2.5	647	0.3	68		
2020	25.6	6,652	9.5	2,472	2.9	760	0.2	47		
2021	25.6	6,656	10.5	2,731	3.7	973	0.2	41		
2022	24.2	6,300	10.2	2,651	4.5	1,164	0.3	72		
2023	23.0	5,983	9.8	2,545	3.6	934	0.3	82		
% Difference 2023–2022	-5.0%	-5.0%	-4.0%	-4.0%	-19.8%	-19.8%	13.3%	13.9%	N/A	N/A



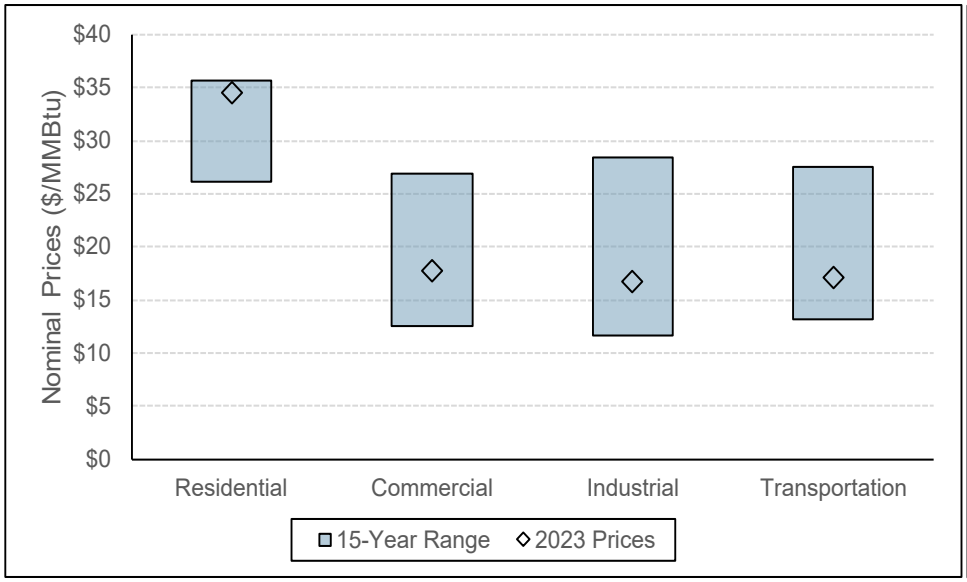
New York State Energy Profile—Propane (HGL)

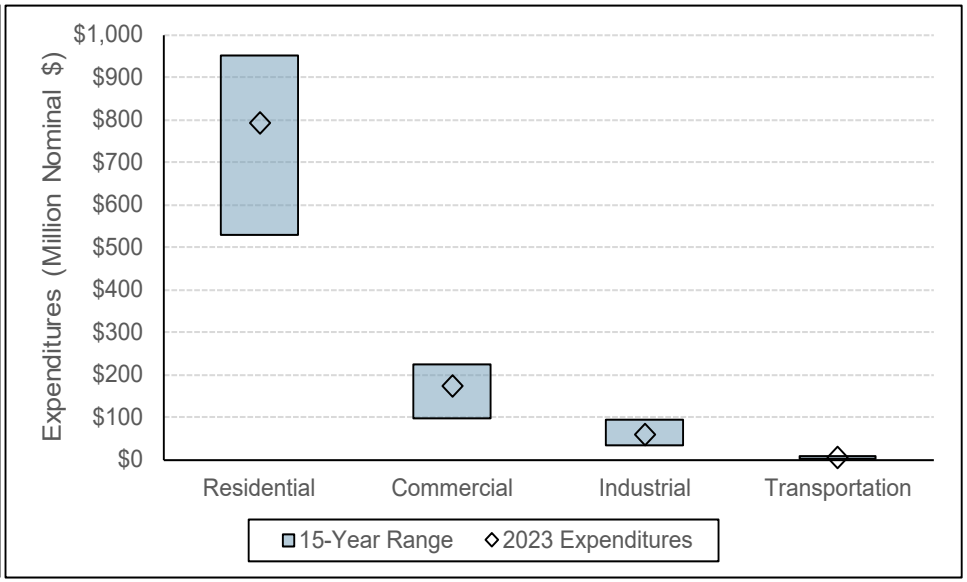
Propane (HGL) 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009	$28.36	$20.59	$24.91	$20.48
2010	$30.08	$23.59	$24.66	$24.32
2011	$33.78	$26.90	$28.47	$27.58
2012	$31.54	$21.33	$21.95	$21.98
2013	$31.25	$21.01	$21.57	$21.66
2014	$34.49	$22.22	$22.99	$22.88
2015	$27.53	$13.40	$12.65	$14.01
2016	$27.04	$12.60	$11.71	$13.20
2017	$32.05	$16.48	$15.65	$17.27
2018	$34.88	$17.93	$17.08	$18.62
2019	$30.00	$14.29	$13.42	$14.91
2020	$26.18	$13.52	$12.64	$13.85
2021	$31.74	$20.71	$19.77	$21.13
2022	$35.68	$21.98	$20.98	$21.16
2023	$34.47	$17.79	$16.76	$17.17
% Difference 2023–2022	-3.4%	-19.1%	-20.1%	-18.9%

Propane (HGL) 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009	$647.03	$136.39	$48.10	$7.62
2010	$667.93	$155.65	$57.85	$2.68
2011	$667.73	$185.69	$78.55	$2.90
2012	$530.69	$127.62	$76.14	$2.35
2013	$606.25	$136.67	$72.52	$3.14
2014	$856.18	$151.61	$83.87	$3.57
2015	$618.49	$97.38	$39.70	$2.73
2016	$574.28	$99.73	$39.02	$3.00
2017	$701.41	$128.05	$36.53	$8.69
2018	$951.00	$145.88	$43.61	$5.12
2019	$848.25	$120.74	$33.38	$3.88
2020	$668.95	$128.39	$36.90	$2.48
2021	$811.53	$217.27	$73.86	$3.32
2022	$863.35	$223.80	$93.84	$5.88
2023	$792.19	$173.88	$60.13	$5.41
% Difference 2023–2022	-8.2%	-22.3%	-35.9%	-8.1%

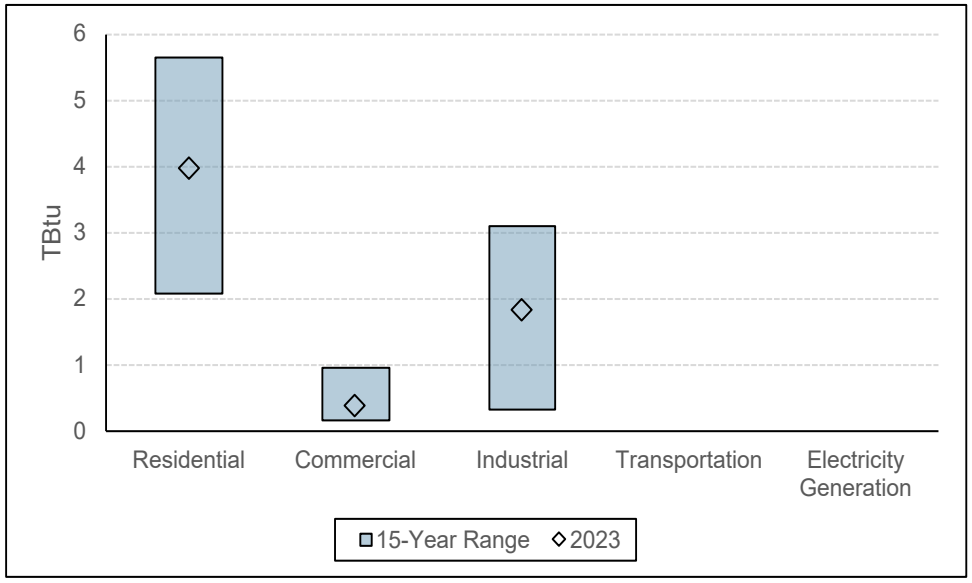




New York State Energy Profile—Kerosene

Kerosene 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
2009	5.5	973.0	1.0	169.0	0.4	76.0				
2010	5.7	999.0	0.9	154.0	3.1	548.0				
2011	4.1	726.0	1.0	168.0	0.9	164.0				
2012	2.1	365.0	0.3	60.0	0.8	144.0				
2013	2.2	394.0	0.2	28.0	0.5	84.0				
2014	3.8	672.0	0.3	54.0	0.9	153.0				
2015	2.6	458.0	0.2	28.0	0.7	127.0				
2016	3.4	602.0	0.3	57.0	1.0	176.0				
2017	2.3	402.0	0.2	31.0	0.3	58.0				
2018	2.1	376.0	0.2	41.0	0.7	124.0				
2019	3.3	576.0	0.4	74.0	0.7	121.0				
2020	3.1	551.0	0.3	54.0	2.2	384.0				
2021	2.5	440.0	0.2	42.0	0.6	108.0				
2022	2.2	396.0	0.2	38.0	0.5	81.0				
2023	4.0	703.0	0.4	68.0	1.8	325.0				
% Difference 2023–2022	77.8%	77.5%	77.8%	78.9%	301.3%	301.2%	N/A	N/A	N/A	N/A



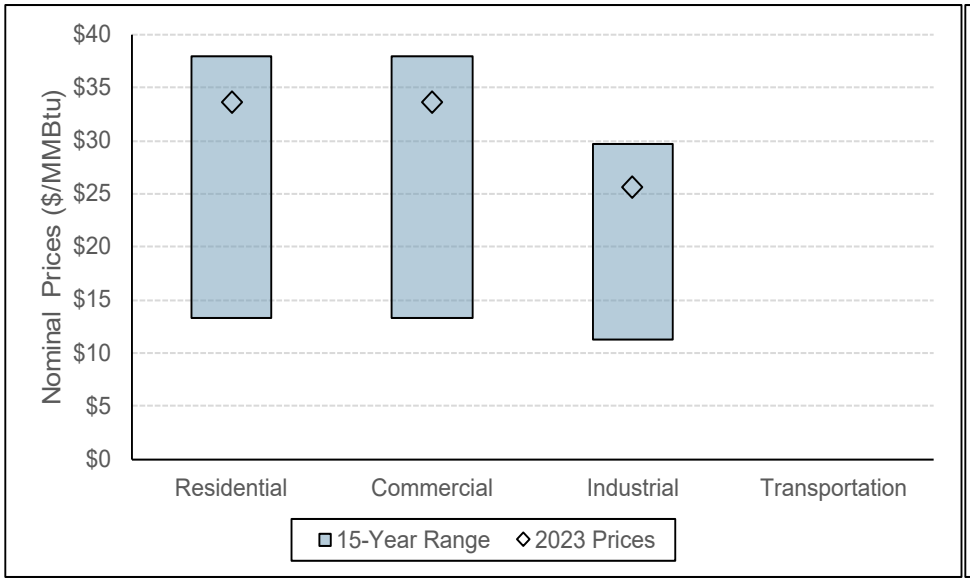
New York State Energy Profile—Kerosene

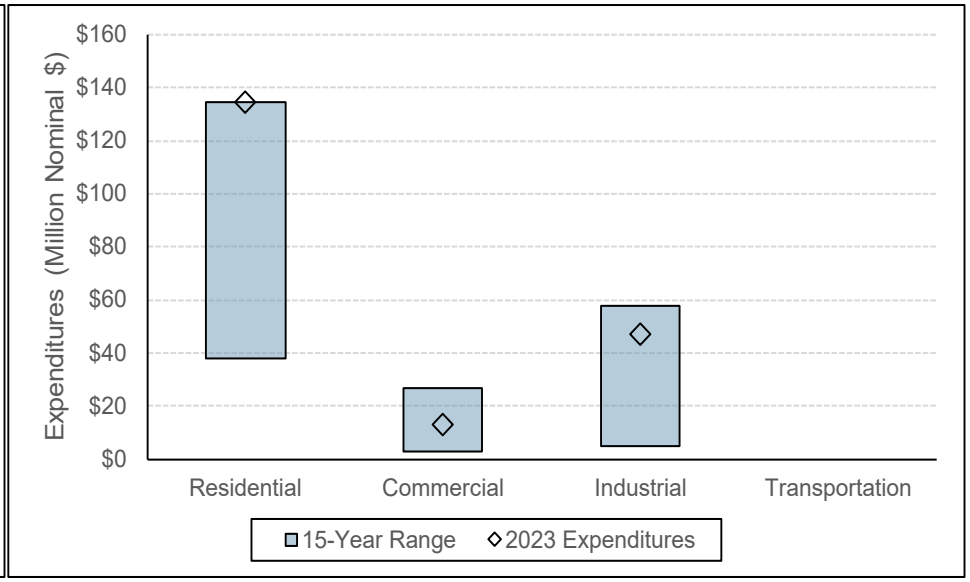
Kerosene 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009	$20.83	$20.83	$15.14	
2010	$23.77	$23.77	$18.61	
2011	$28.13	$28.13	$24.56	
2012	$29.62	$29.62	$25.67	
2013	$29.68	$29.68	$26.03	
2014	$29.84	$29.84	$24.64	
2015	$16.65	$16.65	$14.41	
2016	$13.27	$13.27	$11.28	
2017	$16.60	$16.60	$14.29	
2018	$23.47	$23.47	$17.92	
2019	$22.39	$22.39	$16.96	
2020	$14.54	$14.54	$12.53	
2021	$22.93	$22.93	$16.61	
2022	$37.92	$37.92	$29.72	
2023	$33.68	$33.68	$25.69	
% Difference 2023–2022	-11.2%	-11.2%	-13.6%	N/A

Kerosene 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009	$114.90	$20.00	$6.50	
2010	$134.61	$20.77	$57.84	
2011	$115.81	$26.81	$22.79	
2012	$61.37	$10.01	$21.00	
2013	$66.36	$4.72	$12.39	
2014	$113.63	$9.07	$21.39	
2015	$43.24	$2.63	$10.36	
2016	$45.32	$4.33	$11.29	
2017	$37.85	$2.91	$4.70	
2018	$50.04	$5.49	$12.58	
2019	$73.13	$9.45	$11.63	
2020	$45.45	$4.42	$27.29	
2021	$57.26	$5.53	$10.18	
2022	$85.05	$8.19	$13.64	
2023	$134.35	$12.93	$47.32	
% Difference 2023–2022	58.0%	57.9%	246.9%	N/A





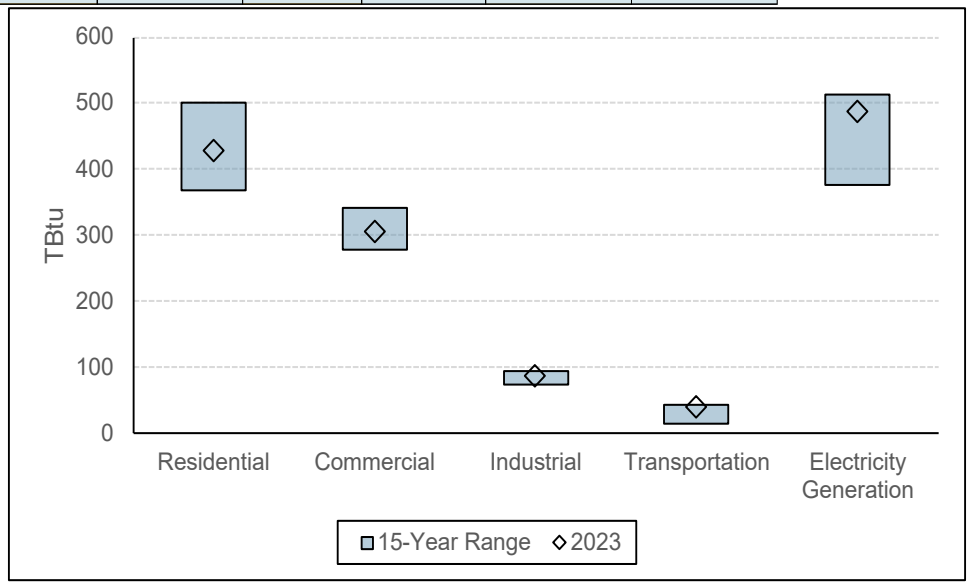
New York State Energy Profile—Natural Gas

Natural Gas 15-Year Consumption Summary by Sector - Including SGF (Excluding SGF)

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	BCF	TBtu	BCF	TBtu	BCF	TBtu	BCF	TBtu	BCF
2009	413.6 (413.6)	404.9 (404.7)	286.8 (286.8)	280.8 (280.7)	74.8	73.2	15.8	15.5	375.6 (375.6)	368.4 (367.5)
2010	399.7 (399.7)	390.5 (390.7)	294.1 (294.1)	287.4 (287.5)	77.8	76.0	19.2	18.7	433.7 (433.7)	425.5 (424)
2011	404.3 (404.3)	393.8 (393.7)	298.9 (298.9)	291.1 (291)	77.7	75.7	23.3	22.7	443.6 (443.6)	434 (431.9)
2012	369.2 (369.2)	357.7 (357.8)	278.9 (278.9)	270.2 (270.3)	77.0	74.6	22.2	21.5	513.6 (513.6)	499.1 (497.7)
2013	430.8 (430.8)	416.4 (416.2)	311.2 (311.2)	300.8 (300.7)	82.9	80.2	20.8	20.1	469.5 (469.5)	455.8 (453.6)
2014	473.6 (473.6)	458.3 (458.5)	330.9 (330.9)	320.2 (320.3)	87.4	84.6	34.5	33.3	466 (466)	452.8 (451.1)
2015	467 (467)	452.2 (452.1)	321.4 (321.4)	311.2 (311.1)	86.1	83.3	36.2	35.1	486 (486)	471.6 (470.5)
2016	425.6 (425.6)	412.5 (412.4)	312.2 (312.2)	302.6 (302.5)	83.6	81.1	28.6	27.7	486.5 (486.5)	472.4 (471.4)
2017	446.6 (446.6)	432.6 (432.4)	320.4 (320.4)	310.3 (310.2)	85.7	83.0	26.7	25.9	397.4 (397.4)	385.5 (384.7)
2018	501.6 (501.6)	485.7 (485.6)	341 (341)	330.2 (330.1)	94.6	91.6	28.3	27.4	428.1 (428.1)	415.5 (414.4)
2019	488.9 (488.9)	473.6 (473.7)	333.2 (333.2)	322.8 (322.9)	93.4	90.5	31.8	30.8	390.4 (390.4)	378.6 (378.3)
2020	451.8 (451.8)	437.1 (437)	298.6 (298.6)	288.9 (288.8)	89.5	86.6	28.5	27.6	436.8 (436.8)	423.4 (422.4)
2021	459.9 (459.9)	445.6 (445.6)	307.4 (307.4)	297.8 (297.8)	92.8	89.9	37.9	36.7	461.6 (461.6)	447.3 (447.3)
2022	464.3 (463.9)	449.8 (449.5)	313.7 (313.4)	303.9 (303.7)	92.0	89.1	44.0	42.7	490.5 (490.1)	475.5 (474.9)
2023	428.2 (427.7)	414.8 (414.4)	305.3 (305)	295.8 (295.5)	87.6	84.9	40.1	38.8	487 (486.4)	472.1 (471.4)
% Difference 2023–2022	-7.8%	-7.8%	-2.7%	-2.7%	-4.8%	-4.8%	-9.0%	-9.0%	-0.7%	-0.7%

Notes:

1. SGF are low volumes of gas included within the natural gas system for a variety of reasons including burn efficiency and system functionality.
2. Natural gas with SGF excluded is presented for energy accounting since these SFG are already accounted for from other petroleum products.
3. Industrial and transportation sectors natural gas estimate are assumed to not include any SGF.
4. Visuals depicting TBtu of natural gas consumed, prices, and expenditures by sector includes the SFG as that is what is available at the end-use points.



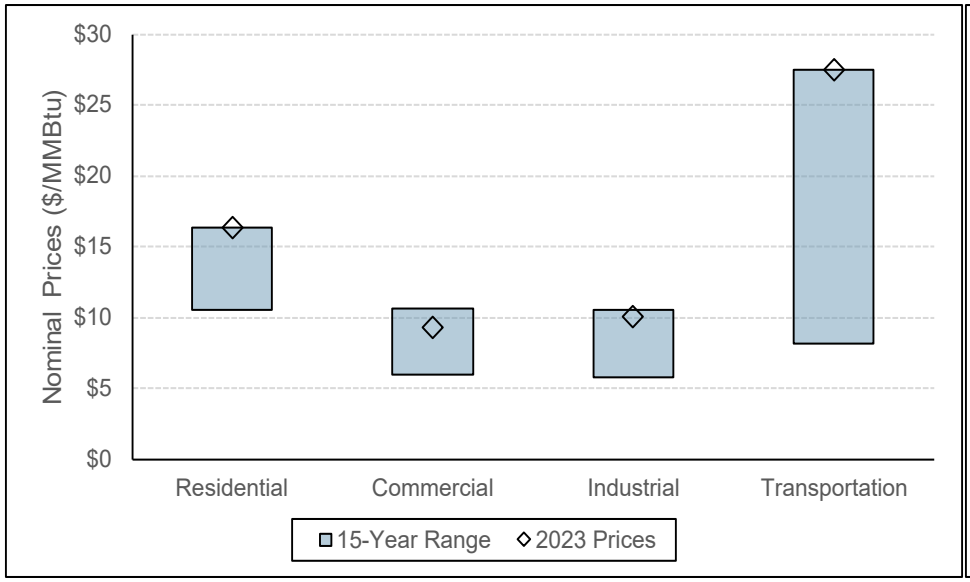
New York State Energy Profile—Natural Gas

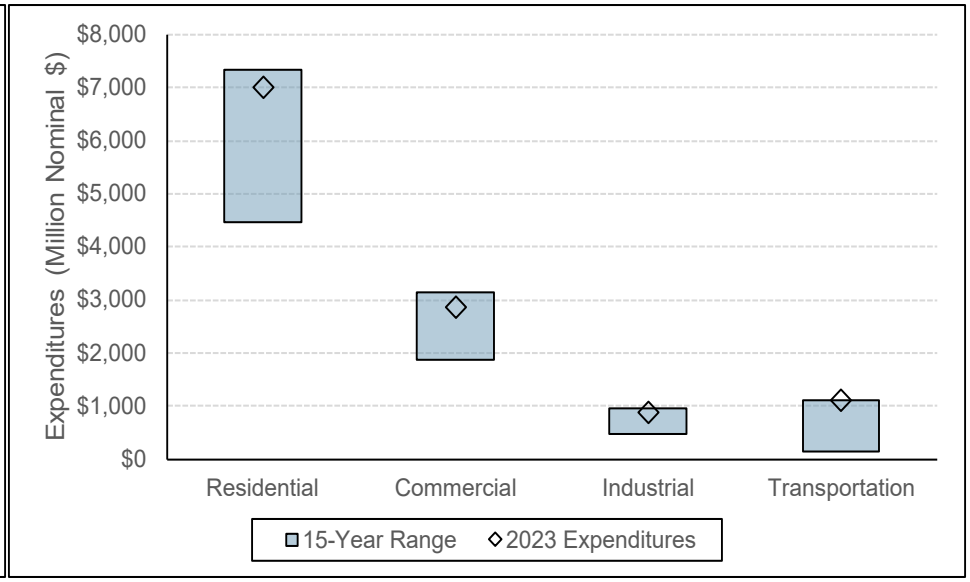
Natural Gas 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009	$14.73	$10.49	$9.32	$11.62
2010	$13.72	$10.63	$8.35	$8.13
2011	$13.35	$9.08	$7.97	$9.56
2012	$12.56	$7.60	$6.70	$20.34
2013	$12.07	$7.73	$7.19	$19.93
2014	$12.13	$8.04	$7.87	$19.73
2015	$10.84	$6.64	$6.41	$18.91
2016	$10.51	$6.00	$5.74	$18.60
2017	$11.66	$6.65	$6.98	$20.20
2018	$11.98	$7.13	$7.58	$20.92
2019	$12.22	$6.98	$7.46	$21.01
2020	$12.38	$6.66	$6.77	$21.27
2021	$13.35	$7.66	$8.12	$21.59
2022	$15.83	$9.99	$10.54	$25.27
2023	$16.37	$9.34	$10.08	$27.50
% Difference 2023–2022	3.4%	-6.5%	-4.4%	8.8%

Natural Gas 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009	$6,092.76	$3,008.94	$696.71	$183.65
2010	$5,483.34	$3,126.68	$649.91	$155.69
2011	$5,397.73	$2,713.82	$619.09	$222.81
2012	$4,637.72	$2,120.00	$515.63	$450.65
2013	$5,199.86	$2,405.70	$596.29	$415.20
2014	$5,745.02	$2,660.13	$687.86	$679.95
2015	$5,062.20	$2,134.17	$551.70	$685.34
2016	$4,472.67	$1,873.07	$480.09	$532.33
2017	$5,207.74	$2,130.73	$598.40	$540.31
2018	$6,009.34	$2,431.59	$717.09	$592.91
2019	$5,974.37	$2,325.69	$696.96	$668.03
2020	$5,593.73	$1,988.95	$605.71	$607.09
2021	$6,139.22	$2,354.37	$753.30	$817.53
2022	$7,350.11	$3,133.69	$969.54	$1,113.09
2023	$7,009.16	$2,851.74	$882.82	$1,102.64
% Difference 2023–2022	-4.6%	-9.0%	-8.9%	-0.9%

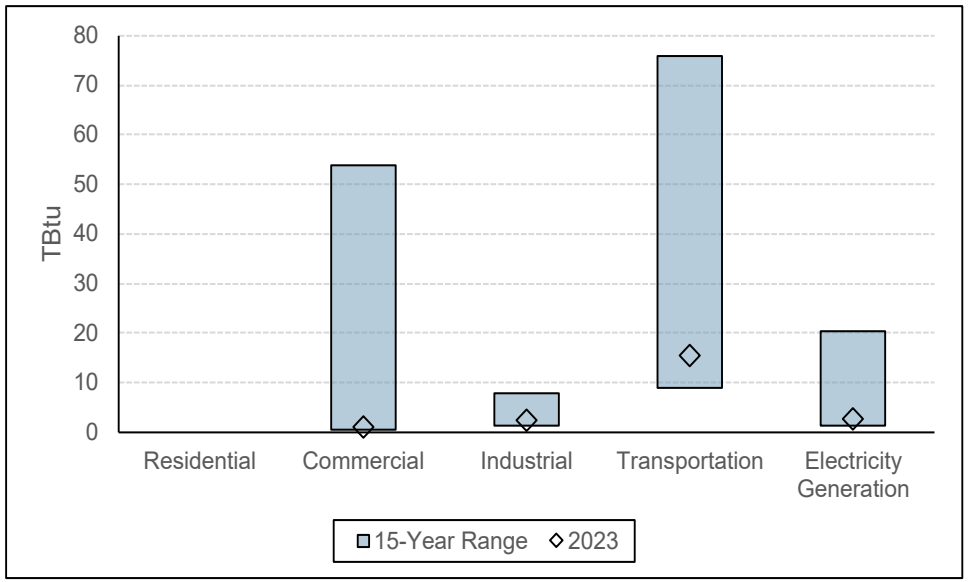




New York State Energy Profile—Residual Fuel Oil

Residual Fuel Oil 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
2009			53.9	8,571.0	3.0	485.0	73.8	11,743.0	20.5	3,261.0
2010			49.3	7,835.0	3.2	514.0	76.0	12,094.0	11.3	1,790.0
2011			44.6	7,089.0	7.8	1,244.0	32.4	5,158.0	6.4	1,026.0
2012			26.6	4,237.0	3.6	578.0	31.4	4,988.0	2.9	459.0
2013			19.7	3,139.0	4.5	711.0	39.6	6,300.0	5.5	882.0
2014			5.3	846.0	3.5	552.0	48.8	7,770.0	14.0	2,228.0
2015			2.0	312.0	2.7	431.0	30.8	4,897.0	12.2	1,942.0
2016			2.0	312.0	2.9	457.0	31.2	4,965.0	3.9	624.0
2017			1.8	285.0	3.4	539.0	23.5	3,736.0	4.0	642.0
2018			1.0	156.0	2.6	406.0	20.7	3,296.0	10.2	1,616.0
2019			0.7	117.0	2.3	360.0	9.0	1,431.0	2.3	361.0
2020			0.6	90.0	1.2	194.0	12.1	1,919.0	1.3	212.0
2021			1.2	188.0	2.8	444.0	18.2	2,893.0	5.3	845.0
2022			1.2	193.0	2.9	455.0	18.6	2,965.0	10.3	1,634.0
2023			1.0	160.0	2.4	378.0	15.5	2,461.0	2.8	443.0
% Difference 2023–2022	N/A	N/A	-17.0%	-17.1%	-17.0%	-16.9%	-17.0%	-17.0%	-72.9%	-72.9%



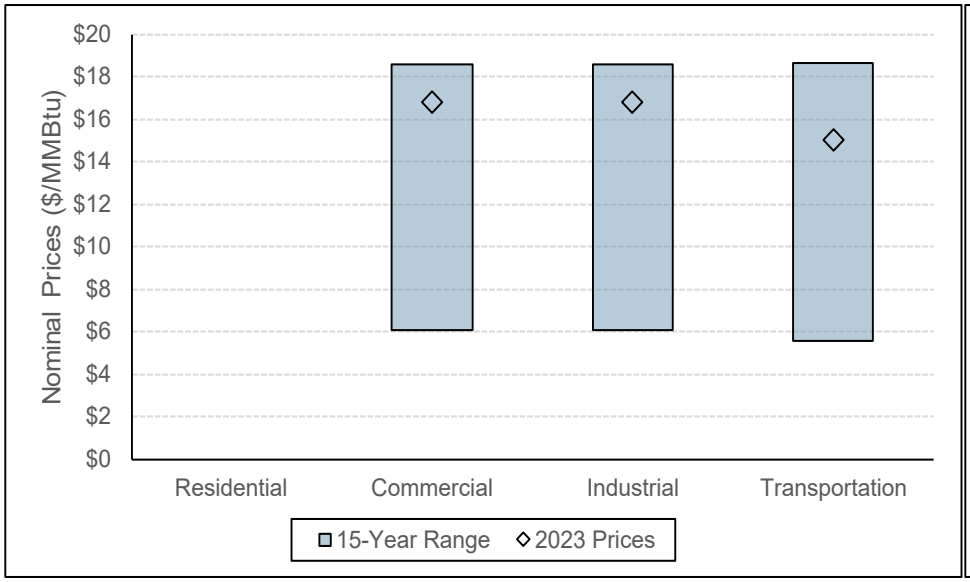
New York State Energy Profile—Residual Fuel Oil

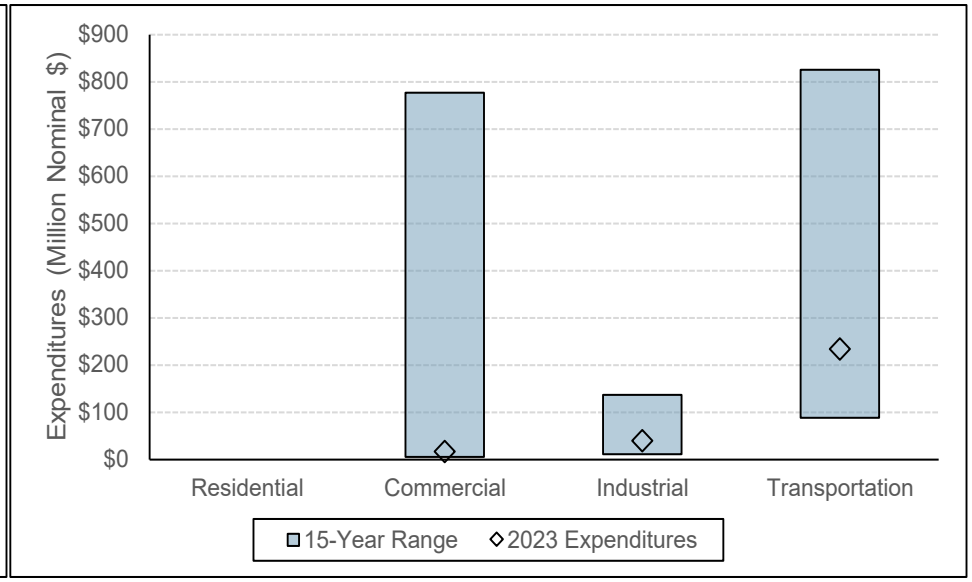
Residual Fuel Oil 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009		$9.94	$9.94	$8.24
2010		$12.90	$12.90	$10.86
2011		$17.41	$17.41	$14.81
2012		$18.36	$18.36	$15.40
2013		$16.84	$16.84	$15.52
2014		$14.75	$14.75	$13.19
2015		$7.83	$7.83	$7.46
2016		$6.10	$6.10	$5.60
2017		$7.80	$7.80	$7.55
2018		$10.26	$10.26	$9.99
2019		$9.78	$9.78	$10.00
2020		$7.72	$7.72	$7.29
2021		$11.49	$11.49	$10.97
2022		$18.59	$18.59	$18.65
2023		$16.81	$16.81	$15.02
% Difference 2023–2022	N/A	-9.6%	-9.6%	-19.5%

Residual Fuel Oil 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009		$535.61	$30.30	$608.36
2010		$635.48	$41.72	$825.71
2011		$775.95	$136.16	$480.27
2012		$489.04	$66.74	$482.90
2013		$332.32	$75.31	$614.67
2014		$78.48	$51.17	$644.31
2015		$15.35	$21.21	$229.68
2016		$11.96	$17.51	$174.81
2017		$13.97	$26.43	$177.35
2018		$10.10	$26.16	$207.02
2019		$7.19	$22.14	$89.96
2020		$4.35	$9.43	$87.97
2021		$13.62	$32.09	$199.56
2022		$22.57	$53.20	$347.65
2023		$16.94	$39.94	$232.42
% Difference 2023–2022	N/A	-24.9%	-24.9%	-33.1%

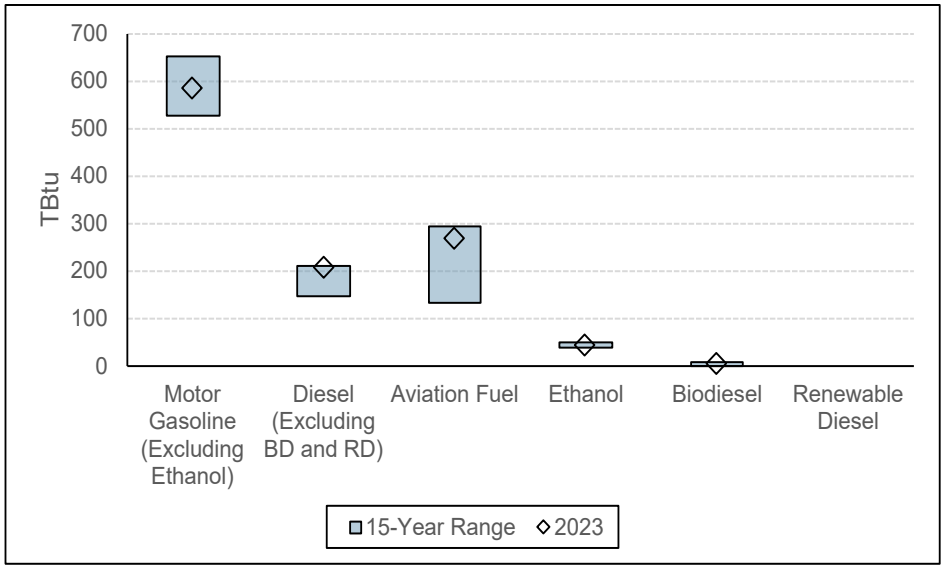




New York State Energy Profile—Transportation Fuels

Transportation Fuels 15-Year Consumption Summary

Year	Motor Gasoline (Excluding Ethanol)		Diesel (Excluding BD and RD)		Aviation Fuel		Ethanol		Biodiesel		Renewable Diesel	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
2009	650.2	123,898	158.7	27,462	200.5	35,364	41.6	12,023	1.1	208		
2010	652.9	124,599	162.2	28,077	230.5	40,652	46.8	13,488	0.9	168		
2011	617.6	117,960	161.5	27,963	231.8	40,879	44.2	12,758	3.1	571		
2012	603.6	115,262	156.1	27,039	233.3	41,158	43.8	12,640	3.0	552		
2013	600.7	114,702	147.2	25,497	247.8	43,706	44.3	12,759	4.8	898		
2014	621.9	118,814	157.0	27,191	254.2	44,839	45.6	13,129	4.6	861		
2015	612.2	117,035	164.3	28,454	267.2	47,133	44.7	12,874	4.7	877		
2016	634.8	121,366	173.2	30,004	282.9	49,896	46.6	13,433	7.6	1,416		
2017	641.4	122,624	175.2	30,354	293.4	51,747	47.9	13,790	7.0	1,305		
2018	647.4	123,753	188.0	32,569	284.8	50,237	48.8	14,005	6.2	1,153	0.1	26.0
2019	637.9	121,935	176.5	30,581	288.3	50,858	48.5	13,937	4.9	920		
2020	528.9	101,066	163.4	28,318	134.8	23,780	40.4	11,610	5.1	959		
2021	582.2	111,283	187.6	32,517	174.8	30,844	44.9	12,897	4.7	870		
2022	571.6	109,269	212.5	36,827	240.6	42,446	44.2	12,703	4.9	908		
2023	584.8	111,801	207.2	35,908	270.2	47,658	45.1	12,969	6.6	1,229		
% Difference 2023–2022	2.3%	2.3%	-2.5%	-2.5%	12.3%	12.3%	2.0%	2.1%	35.3%	35.4%	N/A	N/A



Note:

Motor gasoline and ethanol consumption represents a statewide consumption including all sectors. While the majority of motor gasoline and ethanol volumes are consumed in the transportation sector, limited volumes are also consumed in other sectors. All other fuels in this summary reflect transportation sector consumption.

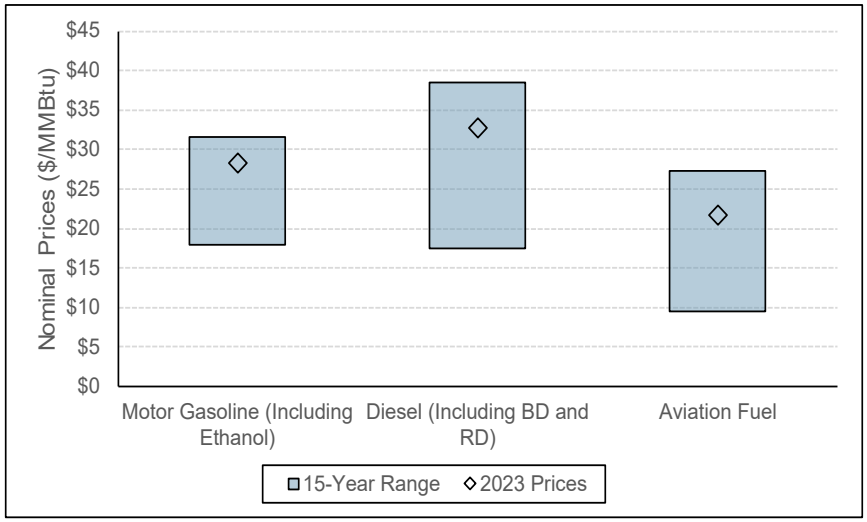
New York State Energy Profile—Transportation Fuels

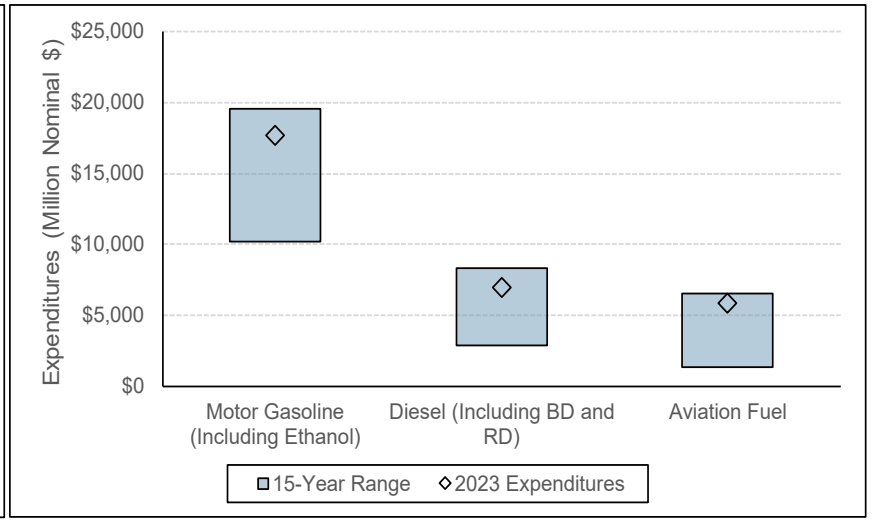
Transportation Fuels 15-Year Prices Summary (Nominal $/MMBtu)

Year	Motor Gasoline	Diesel	Aviation Fuel
2009	$19.41	$18.27	$12.64
2010	$22.98	$22.32	$16.43
2011	$29.16	$28.52	$22.77
2012	$30.20	$29.45	$23.16
2013	$29.43	$28.83	$22.15
2014	$28.37	$28.66	$20.61
2015	$20.47	$21.04	$11.99
2016	$18.13	$17.54	$9.49
2017	$20.12	$20.31	$12.21
2018	$22.23	$24.18	$16.00
2019	$20.97	$23.50	$14.77
2020	$17.86	$20.20	$10.04
2021	$23.87	$24.66	$14.70
2022	$31.56	$38.47	$27.35
2023	$28.14	$32.64	$21.69
% Difference 2023–2022	-10.8%	-15.2%	-20.7%

Transportation Fuels 15-Year Expenditures Summary (Million Nominal $)

Year	Motor Gasoline	Diesel	Aviation Fuel
2009	$13,428.56	$2,919.98	$2,534.04
2010	$16,078.83	$3,640.50	$3,786.64
2011	$19,298.88	$4,693.76	$5,277.06
2012	$19,552.63	$4,684.96	$5,404.22
2013	$18,980.94	$4,383.08	$5,488.55
2014	$18,936.95	$4,631.14	$5,239.00
2015	$13,447.75	$3,554.98	$3,203.69
2016	$12,353.93	$3,171.25	$2,684.37
2017	$13,868.68	$3,700.36	$3,581.91
2018	$15,477.13	$4,698.59	$4,556.72
2019	$14,394.40	$4,263.23	$4,258.37
2020	$10,166.57	$3,404.35	$1,353.21
2021	$14,969.12	$4,741.80	$2,570.10
2022	$19,435.85	$8,361.69	$6,580.85
2023	$17,727.24	$6,977.62	$5,860.07
% Difference 2023–2022	-8.8%	-16.6%	-11.0%

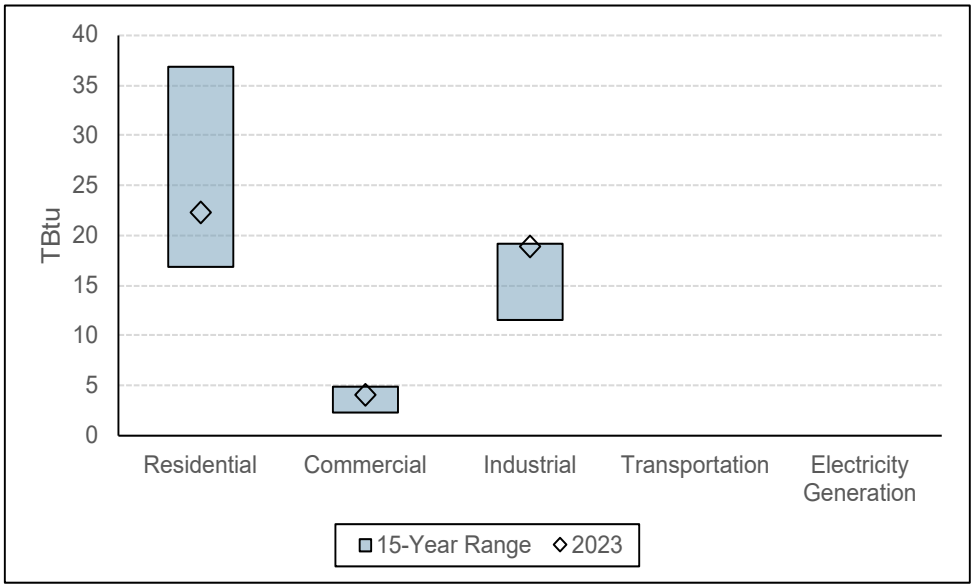




New York State Energy Profile—Wood

Wood 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mcords	TBtu	Mcords	TBtu	Mcords	TBtu	Mcords	TBtu	Mcords
2009	19.3	967.2	2.7	136.6	11.6	578.5				
2010	20.7	1,037.3	2.7	134.9	16.4	818.4				
2011	20.1	1,006.1	2.6	129.9	18.5	924.7				
2012	16.8	840.7	2.3	113.7	19.1	953.5				
2013	21.9	1,097.0	2.6	131.8	18.8	939.1				
2014	22.2	1,110.2	2.6	131.8	18.6	929.6				
2015	36.8	1,842.4	4.9	246.8	18.5	925.7				
2016	29.5	1,475.5	4.6	227.7	18.7	936.2				
2017	28.6	1,427.5	4.6	227.8	18.5	925.3				
2018	34.8	1,739.8	4.5	227.0	18.3	916.8				
2019	35.5	1,775.7	4.5	222.8	18.6	932.2				
2020	20.2	1,007.8	4.0	200.6	18.0	898.3				
2021	20.8	1,042.0	4.0	200.6	18.1	903.6				
2022	26.3	1,312.7	4.0	200.6	19.1	957.0				
2023	22.3	1,116.0	4.0	200.6	18.9	945.4				
% Difference 2023–2022	-15.0%	-15.0%	0.0%	0.0%	-1.2%	-1.2%	N/A	N/A	N/A	N/A



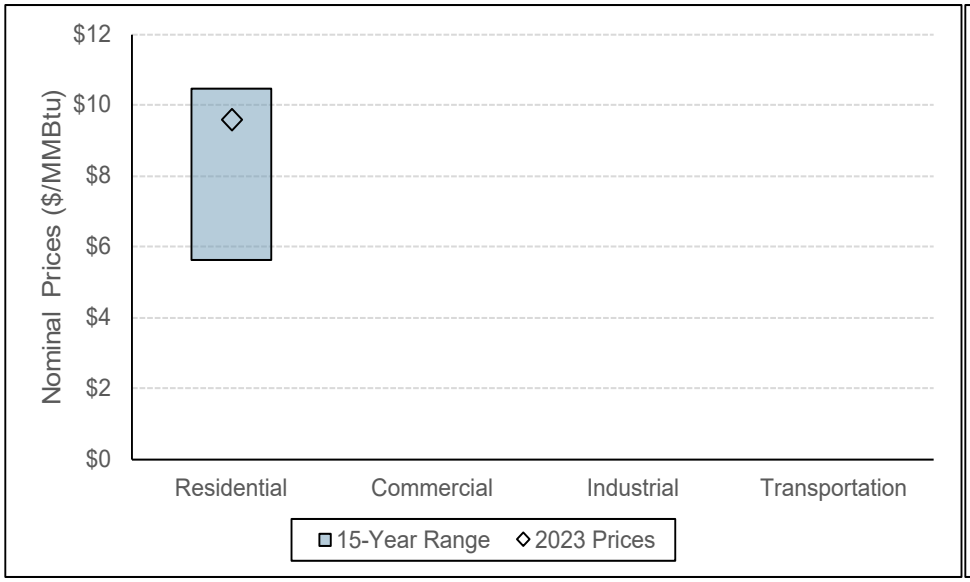
New York State Energy Profile—Wood

Wood 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2009	$6.45			
2010	$7.61			
2011	$9.15			
2012	$10.19			
2013	$9.98			
2014	$9.73			
2015	$6.71			
2016	$5.73			
2017	$6.41			
2018	$7.09			
2019	$6.82			
2020	$5.64			
2021	$6.77			
2022	$10.47			
2023	$9.58			
% Difference 2023–2022	-8.5%	N/A	N/A	N/A

Wood 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2009	$124.76			
2010	$157.88			
2011	$184.11			
2012	$171.33			
2013	$218.96			
2014	$216.04			
2015	$247.24			
2016	$169.09			
2017	$183.01			
2018	$246.70			
2019	$242.21			
2020	$113.68			
2021	$141.08			
2022	$274.88			
2023	$213.82			
% Difference 2023–2022	-22.2%	N/A	N/A	N/A



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Appendix C. New York State Energy Indicators

This appendix presents a selection of New York State data points to support additional calculations and analyses of energy patterns across economic, social, and transportation sectors. Appendix D also has an expanded selection of energy indicator datasets, including a compilation of historical data.

Table C-1. New York State Energy Indicators Data

Data Type (Units)	Value	Source
Population (count of people)	19,571,216	U.S. Census Bureau (https://www.census.gov/)
Housing Units (count of housing units)	7,809,267	U.S. Census Bureau (https://www.census.gov/)
Licensed Drivers (count of NYS licensed drivers)	12,314,191	U.S. Department of Transportation, Federal Highway Administration (https://highways.dot.gov/)
Vehicle Registrations (count of registered vehicles)	9,361,933	U.S. Department of Transportation, Federal Highway Administration (https://highways.dot.gov/)
Vehicle Miles Traveled (million miles)	66,827	U.S. Department of Transportation, Federal Highway Administration (https://highways.dot.gov/)
2023 GDP (billions of 2024 dollars)	$ 27,720.7	U.S. Bureau of Economic Analysis (https://www.bea.gov/)
2023 NYS GDP (billions of 2024 dollars)	$ 2,172.0	U.S. Bureau of Economic Analysis (https://www.bea.gov/)

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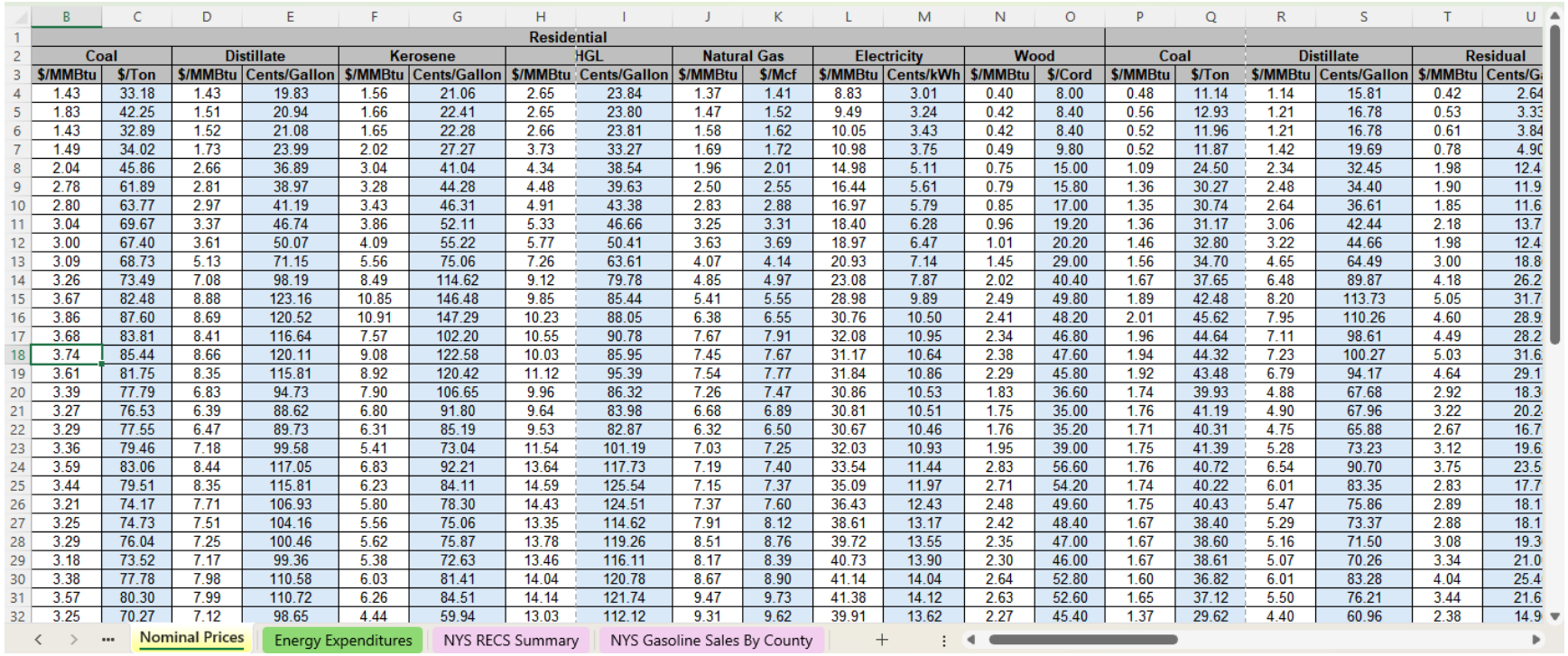
Appendix D. New York State Energy Profile Data Annex

This appendix serves as a data annex, containing all datasets summarized in this report and the online dashboard, along with supplemental datasets that extend the findings presented in the previous *Patterns and Trends* reports.

Table D.1. Overview of Report and Supplemental Datasets in the Data Annex



	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Residential																			
2	Coal		Distillate		Kerosene		HGL		Natural Gas		Electricity		Wood		Coal		Distillate		Residual	
3	$/MMBtu	$/Ton	$/MMBtu	Cents/Gallon	$/MMBtu	Cents/Gallon	$/MMBtu	Cents/Gallon	$/MMBtu	$/Mcf	$/MMBtu	Cents/kWh	$/MMBtu	$/Cord	$/MMBtu	$/Ton	$/MMBtu	Cents/Gallon	$/MMBtu	Cents/Ga
4	1.43	33.18	1.43	19.83	1.56	21.06	2.65	23.84	1.37	1.41	8.83	3.01	0.40	8.00	0.48	11.14	1.14	15.81	0.42	2.64
5	1.83	42.25	1.51	20.94	1.66	22.41	2.65	23.80	1.47	1.52	9.49	3.24	0.42	8.40	0.56	12.93	1.21	16.78	0.53	3.33
6	1.43	32.89	1.52	21.08	1.65	22.28	2.66	23.81	1.58	1.62	10.05	3.43	0.42	8.40	0.52	11.96	1.21	16.78	0.61	3.84
7	1.49	34.02	1.73	23.99	2.02	27.27	3.73	33.27	1.69	1.72	10.98	3.75	0.49	9.80	0.52	11.87	1.42	19.69	0.78	4.90
8	2.04	45.86	2.66	36.89	3.04	41.04	4.34	38.54	1.96	2.01	14.98	5.11	0.75	15.00	1.09	24.50	2.34	32.45	1.98	12.4
9	2.78	61.89	2.81	38.97	3.28	44.28	4.48	39.63	2.50	2.55	16.44	5.61	0.79	15.80	1.36	30.27	2.48	34.40	1.90	11.9
10	2.80	63.77	2.97	41.19	3.43	46.31	4.91	43.38	2.83	2.88	16.97	5.79	0.85	17.00	1.35	30.74	2.64	36.61	1.85	11.6
11	3.04	69.67	3.37	46.74	3.86	52.11	5.33	46.66	3.25	3.31	18.40	6.28	0.96	19.20	1.36	31.17	3.06	42.44	2.18	13.7
12	3.00	67.40	3.61	50.07	4.09	55.22	5.77	50.41	3.63	3.69	18.97	6.47	1.01	20.20	1.46	32.80	3.22	44.66	1.98	12.4
13	3.09	68.73	5.13	71.15	5.56	75.06	7.26	63.61	4.07	4.14	20.93	7.14	1.45	29.00	1.56	34.70	4.65	64.49	3.00	18.8
14	3.26	73.49	7.08	98.19	8.49	114.62	9.12	79.78	4.85	4.97	23.08	7.87	2.02	40.40	1.67	37.65	6.48	89.87	4.18	26.2
15	3.67	82.48	8.88	123.16	10.85	146.48	9.85	85.44	5.41	5.55	28.98	9.89	2.49	49.80	1.89	42.48	8.20	113.73	5.05	31.7
16	3.86	87.60	8.69	120.52	10.91	147.29	10.23	88.05	6.38	6.55	30.76	10.50	2.41	48.20	2.01	45.62	7.95	110.26	4.60	28.9
17	3.68	83.81	8.41	116.64	7.57	102.20	10.55	90.78	7.67	7.91	32.08	10.95	2.34	46.80	1.96	44.64	7.11	98.61	4.49	28.2
18	3.74	85.44	8.66	120.11	9.08	122.58	10.03	85.95	7.45	7.67	31.17	10.64	2.38	47.60	1.94	44.32	7.23	100.27	5.03	31.6
19	3.61	81.75	8.35	115.81	8.92	120.42	11.12	95.39	7.54	7.77	31.84	10.86	2.29	45.80	1.92	43.48	6.79	94.17	4.64	29.1
20	3.39	77.79	6.83	94.73	7.90	106.65	9.96	86.32	7.26	7.47	30.86	10.53	1.83	36.60	1.74	39.93	4.88	67.68	2.92	18.3
21	3.27	76.53	6.39	88.62	6.80	91.80	9.64	83.98	6.68	6.89	30.81	10.51	1.75	35.00	1.76	41.19	4.90	67.96	3.22	20.2
22	3.29	77.55	6.47	89.73	6.31	85.19	9.53	82.87	6.32	6.50	30.67	10.46	1.76	35.20	1.71	40.31	4.75	65.88	2.67	16.7
23	3.36	79.46	7.18	99.58	5.41	73.04	11.54	101.19	7.03	7.25	32.03	10.93	1.95	39.00	1.75	41.39	5.28	73.23	3.12	19.6
24	3.59	83.06	8.44	117.05	6.83	92.21	13.64	117.73	7.19	7.40	33.54	11.44	2.83	56.60	1.76	40.72	6.54	90.70	3.75	23.5
25	3.44	79.51	8.35	115.81	6.23	84.11	14.59	125.54	7.15	7.37	35.09	11.97	2.71	54.20	1.74	40.22	6.01	83.35	2.83	17.7
26	3.21	74.17	7.71	106.93	5.80	78.30	14.43	124.51	7.37	7.60	36.43	12.43	2.48	49.60	1.75	40.43	5.47	75.86	2.89	18.1
27	3.25	74.73	7.51	104.16	5.56	75.06	13.35	114.62	7.91	8.12	38.61	13.17	2.42	48.40	1.67	38.40	5.29	73.37	2.88	18.1
28	3.29	76.04	7.25	100.46	5.62	75.87	13.78	119.26	8.51	8.76	39.72	13.55	2.35	47.00	1.67	38.60	5.16	71.50	3.08	19.3
29	3.18	73.52	7.17	99.36	5.38	72.63	13.46	116.11	8.17	8.39	40.73	13.90	2.30	46.00	1.67	38.61	5.07	70.26	3.34	21.0
30	3.38	77.78	7.98	110.58	6.03	81.41	14.04	120.78	8.67	8.90	41.14	14.04	2.64	52.80	1.60	36.82	6.01	83.28	4.04	25.4
31	3.57	80.30	7.99	110.72	6.26	84.51	14.14	121.74	9.47	9.73	41.38	14.12	2.63	52.60	1.65	37.12	5.50	76.21	3.44	21.6
32	3.25	70.27	7.12	98.65	4.44	59.94	13.03	112.12	9.31	9.62	39.91	13.62	2.27	45.40	1.37	29.62	4.40	60.96	2.38	14.9

Nominal Prices | Energy Expenditures | NYS RECS Summary | NYS Gasoline Sales By County

Access the full worksheet here: https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends.

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Appendix E. Greenhouse Gas Emissions Resources

This appendix provides resources developed by the New York State Department of Environmental Conservation (DEC) and the New York State Energy Research and Development Authority (NYSERDA) to ensure consistent calculation and accounting of greenhouse gas emissions by fuel type.

Under New York State's Climate Leadership and Community Protection Act (Climate Act), the New York State Department of Environmental Conservation (DEC) publishes an annual inventory of greenhouse gases (GHGs), the Statewide Greenhouse Gas Emissions Report with additional supporting data available at Open NY. As required by the Climate Act, the report applies a 20-year global warming potential and includes all emissions from fossil fuels and electricity consumed within the State, including those from fuel production and transportation occurring beyond the State boundaries. DEC released the first annual report in December 2021, in collaboration with New York State Research and Development Authority (NYSERDA), followed by the first annual update in December 2022.

NYSERDA conducted studies providing the underlying analysis for the energy sector GHG emissions inventory. These include direct emissions, emissions from imported fossil fuels and electricity, methane emissions from oil and gas systems, and hydrofluorocarbon (HFC) emissions, together accounting for more than 80% of statewide GHG emissions. Additional information about NYSERDA's Greenhouse Gas Emissions Studies can be found on NYSERDA's website. NYSERDA updates these studies periodically to incorporate methodological improvements and new data as they become available.

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Appendix F. Supplemental Research Resources

This appendix highlights additional research and resources from New York State Energy Research and Development Authority (NYSERDA) and additional sources that extend beyond the 2023 datasets, showcasing completed or ongoing energy studies.

Table F-1. Additional Resources and Publications of Interest

Resource	Description	Website
Patterns and Trends Report and Online Dashboard	Provides online visuals and access to electronic datasets that track energy patterns and trends in NYS.	https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Patterns-and-Trends
Weekly Energy and Fuels Markets Report	Offers weekly monitoring and analysis of energy and fuels markets in NYS, highlighting trends and price changes.	https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Weekly-Energy-and-Fuels-Markets-Reports
NYSERDA Publications and Technical Reports	Includes a variety of technical resources and reports published by NYSERDA covering energy analysis and research topics.	https://www.nyserda.ny.gov/About/Publications
EIA, Electricity Data (EIA-861)	Provides electricity customer count, sales, and revenue estimates from survey EIA-861, by state and utility.	https://www.eia.gov/electricity/data/eia861/
EIA, Natural Gas Data (EIA-176)	Provides natural gas customer count, deliveries, and revenue estimates from survey EIA-176, by state and utility.	https://www.eia.gov/naturalgas/ngqs/#?year1=2018&year2=2021&company=Name
NOAA, National Weather Service Climate Prediction Center	Provides degree day statistics by state and city	https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

To learn more about NYSERDA's programs and funding opportunities, visit nyserda.ny.gov or follow us on X, Facebook, YouTube, or Instagram.

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