Patterns and Trends: New York State Energy Profile 2008–2022

Final Report | December 2024

NEW YORK STATE
NYSERDA
New York State Energy Research and Development Authority

NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

Our Vision:

New York is a global climate leader building a healthier future with thriving communities; homes and businesses powered by clean energy; and economic opportunities accessible to all New Yorkers.

Our Mission:

Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers and delivering benefits equitably to all.

Patterns and Trends:
New York State Energy Profile
2008–2022

Final Report

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Abstract

"Patterns and Trends: New York State Energy Profile, 2008–2022," 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, 2008–2022," presents a 15-year profile of New York State (NYS) energy-related data. This report has been updated to provide a more streamlined user experience while maintaining the highest level of data accessibility that is complimented by our expanding offering of online resources. Our intention with the updated report features and enhanced flexibility is to facilitate an easier exchange of energy information and to better enable stakeholders to leverage these critical data for a myriad of uses. Alongside the Climate Act Dashboard, information in this report also provides for continued measurement of progress toward the goals outlined in the Climate Leadership and Community Protection Act (the Climate Act).

Important highlights include:

- Identification of a variety of global factors that drove energy sector observations for 2022, including post-pandemic recovery, global events influencing energy supply chains, and weather conditions.
- Observation of an overall increase in consumption of energy and fuels compared to 2021, resulting from continued demand recovery.
- Observation of elevated energy prices during 2022 as supply chains and production of energy and fuels struggled to meet returning demand.

NYSERDA hopes that the information in this report advances our collective understanding of New York State's energy profile and provides all residents with vital information to support sound decision-making from the kitchen table to the executive board room.

Best,

Doreen M. Harris
President and CEO, NYSERDA

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Acronyms and Abbreviations

Σ	summation or total
Btu	British thermal units
CESER	Office of Cybersecurity, Energy Security, and Emergency Response
Cf	cubic feet
Climate Act	Climate Leadership and Community Protection Act
COM	commercial
COVID-19	coronavirus of 2019
CT	Connecticut
DEC	Department of Environmental Conservation
DHSES	NYS Division of Homeland Security and Emergency Services
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation

DPS	NYS Department of Public Service
EIA	U.S. Energy Information Administration
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
gal	gallon
GDP	gross domestic product
GHG	greenhouse gas
GWh	gigawatt hours
HFC	hydrofluorocarbon
HGL	hydrocarbon gas liquids
IND	industrial
kWh	kilowatt hours
LNG	liquefied natural gas
MA	Massachusetts
Mbbl	thousand barrels
MMBtu	million British thermal units
Mtons	thousand tons
NJ	New Jersey
NAERC	North American Electric Reliability Council
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
P&T	Patterns and Trends: New York State Energy Profiles, 2008–2022
Patterns and Trends	Patterns and Trends: New York State Energy Profiles, 2008–2022
PA	Pennsylvania
PADD	Petroleum Administration for Defense District
PS	pumped storage
RECS	Residential Energy Consumption System
RES	residential
SEDS	State Energy Data System
SGF	supplemental gas fuel
TBtu	trillion British thermal units
TRA	transportation
VT	Vermont

Executive Summary

The purpose of this report is to provide a historical review of energy consumption and expenditures in New York State (NYS) through 2022. In 2022, the economy went through a financial rebound, following the devastating impacts of the coronavirus (COVID-19). The recovery, while essential to restart the economy, proved to be challenging and impacted the energy sector in various ways. These challenges included:

- Rebalancing supply and demand
- Addressing production and supply chain struggles to keep up with this rebalancing
- Responding to geopolitical events that influenced all aspects of recovery from the pandemic.

The energy sector was impacted by the market slowdown during the pandemic and ultimately experienced challenges associated with recovery. This Patterns and Trends report of the NYS energy profile evaluates how 2022 compares to a 15-year history of energy data, a focus on comparisons to 2020 and 2021 as New York State emerged from the pandemic.

Consumption of most energy fuels increased during 2022 compared to the prior year, and prices for these fuels and energy products remained significantly elevated. The return of energy demand, suppressed during the pandemic, led to a market characterized by high demand and a limited supply of energy products, which resulted in higher prices. Additionally, Russia's invasion of Ukraine and the subsequent global response to sanctions on Russian products, including energy products, altered the global supply chain, further driving up prices.

Table ES-1 and Figure ES-1 provide fundamental energy summaries for New York State from 2022 based on U.S. Energy Information Administration (EIA) data.

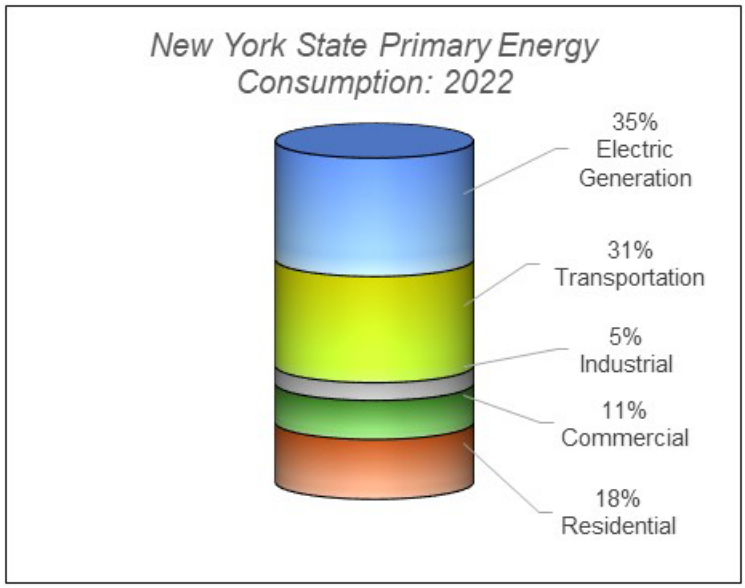
Table ES-1. New York State Executive Summary Statistics for 2022

Source: (EIA 2024) (EIA 2023)

New York State Summary		
Primary Energy Consumption (Tbtu)		3,634
Net Energy Consumption (Tbtu)		2,861
Electricity Sales to Ultimate Customers (GWh)		143,211
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 2024)



The rest of the document provides additional details and resources for an expansive review of NYS energy for 2022, 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, 2008–2022 (*Patterns and Trends*) is the latest issue of the annual report organized by New York State Energy Research and Development Authority's (NYSERDA). This report publishes New York State (NYS) energy statistics, evaluating the past 15 years of energy consumption and prices. Online resources associated with this reporting include an interactive web-based dashboard and access to historical energy data for NYS. 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 (New York State Senate 2023):

> ... 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), NYS Division of Homeland Security and Emergency Services (DHSES), NYS Department of Public Service (DPS), New York Independent System Operator (NYISO), and other emergency managers. Patterns and Trends is a required component of the NYS 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 transitions its energy goals under the Climate Leadership and Community Protection Act (Climate Act) (NYS 2019), the data provided in this annual Patterns and Trends supports energy tracking and planning activities associated with new fuels and technologies coming online.

1.2 New York State Energy Overview

In NYS, end users rely on a complex system of supply chains for various fuel types, as well as market and demand dynamics. This report highlights critical fuels the State historically relied on and those currently used across sectors, as well as 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
- Total petroleum products
  - Distillate fuel oil
  - Kerosene
  - Aviation fuel
  - Motor gasoline
  - Residual fuel oil
- Electricity
- Biofuels
  - Ethanol
  - Biodiesel
- Renewables

Appendix A details assumptions, methodologies, and any revisions to historical data. Data revisions are often presented by sources and affect the specific numbers presented from year to year, but changes in source data methodologies result in significant adjustments to historical compilations of data that are being 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, on the NYSERDA website.

2 Energy and Fuel Markets Influences Summary

At the start of 2022, global energy markets were recovering from the coronavirus of 2019 (COVID-19) pandemic. While the introduction of the vaccine and return to work initiated economic recovery, the pandemic's impacts on market and economic factors remained. Global markets, including technology (such as computer chips), marine supply chain, and labor availability, experienced similar experienced similar challenges observed in the energy sector.

The imbalance between supply and demand was a key underlying factor to rising prices in 2022. Prices for energy commodities increased and remained elevated both domestically and globally. The U.S. Energy Information Administration (EIA) reported that in 2021, energy commodity prices rose due to increasing demand for gasoline, diesel, crude oil, and natural gas. As government lockdowns ended, travel rapidly increased, and consumer spending on goods approached prepandemic levels. Fuels production lagged behind global demand, as the financial risk of restarting operations (or shutting operations down) was closely monitored by producers and refiners that had dealt with nearly two years of COVID-19. This slower production increase relative to demand growth was a fundamental reason for price increases (EIA 2022).

Low regional inventories across all petroleum products and natural gas led to increased prices for near term energy commodities. In standard energy market conditions, futures prices are typically higher than current prices. The reflects ambiguity around market conditions in the future while near-term market conditions tend to reflect certainty around market expectations. Under these standard market conditions, suppliers are encouraged to increase inventories, as early purchases avoid anticipated future price increases. In 2022, however, concerns regarding fuel availability in the market emerged and prices for future commodity contracts fell below current prices. This market condition limited inventories of fuels, particularly distillate and gasoline

In addition to the supply/demand imbalance other factors that influenced supply and pricing of energy commodities include:

- Russia's invasion of Ukraine
- Global supply chain challenges
- Weather-related market influences

2.1 Russia's Invasion of Ukraine

During late 2021 and January 2022, Russian forces organized along the Ukraine border. On February 24, 2022, Russia invaded Ukraine with ground troops and missile strikes (BBC 2024). In response to the invasion, the U.S. and other countries imposed strict sanctions on Russia, targeting banks, corporations, and individuals to financially deter the aggression (The White House 2022). These sanctions continued throughout 2022 and eventually extended into the energy sector.

Russia was a significant source of crude oil, petroleum products, and natural gas for European countries and global markets. Following the invasion and subsequent sanctions, many energy products Russia supplied were no longer accepted. This shift caused rapid price changes and a shift in global energy markets as the supply chains adjusted to compensate for the loss of Russian products (EIA 2022). A coordinated U.S. release of significant crude oil barrels from the Strategic Petroleum Reserve and similar actions from other countries aimed to maintain an adequate supply of petroleum in global markets (EIA 2022).

The war impacted natural gas and liquified natural gas (LNG) markets, although changes occurred slowly since sanctions on natural gas were among the last to be imposed. As European countries moved away from Russian natural gas, U.S. LNG export capability emerged as a flexible option (S&P Global 2022). Sanctions and attacks on Russia's infrastructure limited the flow of natural gas from Russia into Europe. In 2022, LNG imports into the European Union and the United Kingdom increased by approximately 73% compared to 2021, replacing pipeline imports from Russia (EIA, Today in Energy 2023).

2.2 Global Supply Chain Challenges

One long-term impact of the COVID-19 pandemic included significant global logistical and labor challenges. These challenges highlighted considerable supply chain disruptions starting in 2021, which shaped the international markets and economics, including energy markets. Specific challenges directly affecting energy markets included (S&P Global 2022):

- Congestion in container shipping networks
- Delays and disruptions in manufacturing and deliveries, including computer chips for a wide range of products
- Strains on capacity in global oil production

As the production of crude oil, petroleum products, and natural gas/LNG continued to struggle to meet increasing demand, shipping delays also significantly hindered the transportation of fuel.

2.3 Weather-related Market Influences

The weather during 2022 limitedly impacted energy markets, particularly in New York State. According to the National Oceanic and Atmospheric Administration (NOAA), the winter season at the start and end of 2022 generally experienced normal to warmer-than-normal temperatures (NOAA 2024), resulting in manageable heating fuels demand being met by the lower regional inventories and supply chain constraints.

The 2022 Atlantic hurricane season produced 14 named storms, with 3 U.S. landfalls (NOAA 2022):

- Initial landfall of Hurricane Ian Cayo Costa, FL; secondary landfall at Georgetown, SC
- Landfall of Hurricane Fiona near Punta Tocon, PR
- Landfall of Hurricane Nicole in North Hutchinson Island, FL

Aside from the areas directly affected by landfall areas, the hurricanes did not significantly impact the supply chain for energy and fuels markets supplying New York State.

At the end of 2022, winter storm (Elliott) impacted the central and eastern portion of the United States between December 21 and December 26, 2022. For NYS, the storm brought heavy snow and wind resulting in temporary power outages. Beyond NYS, there were similar power outages, but with the rapid temperature decrease during and after the storm, there were refineries and production wells that were forced to shut in production in the southeast. The combination of snow and wind, along with the interruption of production for natural gas had a profound impact on electricity generation and power outages.

The temperatures in the southern United States warmed on December 25, 2022, allowing a rapid restoration from the production slowdown. If the temperatures remained cold for longer period of time, there could have been significant impacts downstream into the northeast; an example of the importance of energy supply chains and regional risks associated with extreme weather. This 2022 storm had similar impacts on the energy industry as winter storm Uri of 2021, which impacted production in the southern portion of the United States. The impact of Elliott in 2022 led the Federal Energy Regulatory Commission to closely monitor how industry implements cold weather reliability standards (FERC 2023).

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:

- NYISO, *Load & Capacity Data Report* (NYISO 2022)
- EIA, *State Energy Data System* (SEDS; EIA 2024)
- U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA), *Highway Statistics 2022* (USDOT 2024)

Appendix B organizes these datasets by sector, and fuel type, detailing consumption, prices, and expenditures, along with 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 containing a file that reflects all data summarized in this report and presented in the online dashboard. Supplemental datasets in the data annex, although not explicitly discussed herein, continue the presentation from the previous issue of Patterns and Trends.

Historical issues of Patterns and Trends presented estimates of greenhouse gas emissions by fuel type. Appendix E provides resources the NYS Department of Environmental Conservation (DEC) and NYSERDA developed to maintain consistency in calculating and accounting for greenhouse gas 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 2022 datasets to showcase completed or ongoing NYSERDA research efforts.

3.1 New York State Energy Consumption

EIA presents a comprehensive energy consumption dataset through SEDS for the entire U.S. that provides consumption estimates for each state. As energy transitions to renewable technologies occur across the U.S., EIA changed its methodology for converting renewable (noncombustible) technologies from physical units in gigawatt hours (GWh) to energy units in British thermal units (Btu). and

Historically, EIA SEDS applied a fossil fuel equivalency method to noncombustible renewable technologies (solar, wind, hydropower, geothermal) generating electricity for consumption. The previous approach for a conversion factor based on fossil fuel consumed to generate electricity included an assumption that inefficiencies, such as heat loss, were identical across different generation technologies. This approach resulted in the conversion of GWh of renewable generation into Btu values that included fossil fuel–induced inefficiencies that do not actually apply to these resources.

Starting with the 2022 EIA SEDS datasets, a captured energy conversion, was applied. This method uses a constant conversion factor reflecting the heat content of electricity, instead of the heat content of fossil fuels used to generate electricity, resulting in lower Btu for the GWh attributed to these noncombustible technologies compared to the previous method. Appendix A has additional resources and details.

For New York State, NYSERDA compared the impact of this conversion on primary consumption (Figure 2).

Figure 1. Noncombustible Renewables Conversion Factor Methodology Comparison for New York State

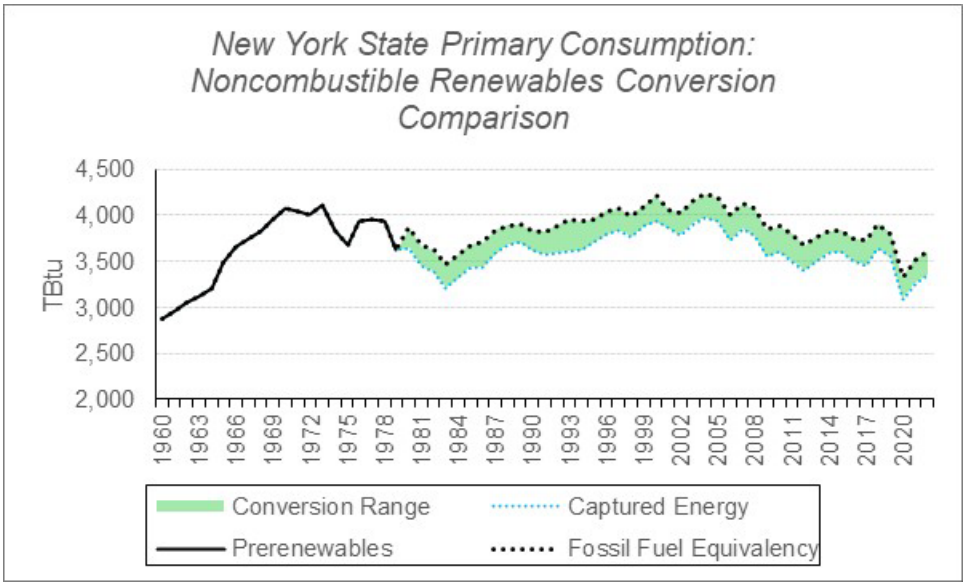


Figure 2 highlights the impact of this methodology change to the overall energy profile. Typically, the EIA's new captured energy method decreases NYS primary consumption by 5% to 10%, resulting in results different than historical estimates. this reduction is a result of attributing a decreased value for trillion British thermal units (TBtu) for these renewable generation technologies. In a DOE report, the complexity of this decision on conversion method to use is highlighted (USDOE 2016):

> …neither option is considered more technically "correct" or more "accurate" than the other, as each option needs to be considered along with its intended use to determine which is appropriate." (DOE 2016, p. 3)

NYSERDA recognizes that EIA has implemented this change in SEDS for the 2022 dataset and will evaluate how the conversion methodology options impact this and future issues of Patterns and Trends. For this Patterns and Trends issue, NYSERDA will continue to rely on fossil fuel equivalency-based conversions historically used for this energy estimation. Appendix B presents renewable technologies with both conversions for awareness, and the data are also available within the data annex as part of Appendix D.

Primary consumption in New York State reached approximately 3,634 TBtu for 2022, reflecting an increase of approximately 2.3%compared to 2021. This marks a second consecutive year of growth since 2020, but remains 5.1% lower than the approximately 3,830 TBtu consumed in 2019. Table 1 summarizes 2022 primary consumption for New York State.

Table 1. New York State Consumption Summary (in Trillion British Thermal Units)

Fuel	Residential	Commercial	Industrial	Transportation	Net Sectoral Consumption/Generation	Electric Generation	Primary Consumption
Coal	0.0	0.0	6.1	0.0	6.1	0.0	6.1
Natural Gas	463.8	313.4	91.6	43.4	912.2	490.1	1,402.3
Petroleum Products[b]	*130.0*	*60.3*	*68.7*	*1,033.6*	*1,292.6*	*16.4*	*1,309.0*
Distillate	103.6	48.7	11.9	202.7	366.8	6.1	373.0
Residual	0.0	1.2	2.9	18.6	22.7	10.3	33.0
Kerosene	2.2	0.2	0.5	0.0	2.9	0.0	2.9
Propane (HGL)	24.2	10.2	4.5	0.3	39.1	0.0	39.1
Gasoline	0.0	0.0	0.0	571.6	571.6	0.0	571.6
Aviation Fuel	0.0	0.0	0.0	240.4	240.4	0.0	240.4
Other Petroleum	0.0	0.0	49.0	0.0	49.0	0.0	49.0
Supplemental Gaseous Fuel[a]	0.4	0.3	0.1	0.0	0.8	0.4	1.2
Renewables	*17.0*	*21.8*	*0.3*	*0.0*	*39.1*	*253.0*	*292.1*
Solar[c]	16.0	20.1	0.3	0.0	36.3	0.9	37.2
Wind	0.0	0.0	0.0	0.0	0.0	37.8	37.8
Geothermal	1.0	1.7	0.0	0.0	2.7	0.0	2.7
Hydroelectric Generation (C)	0.0	0.0	0.0	0.0	0.0	214.4	214.4
Renewable Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bioenergy	*26.1*	*19.5*	*22.3*	*54.7*	*122.6*	*18.6*	*141.1*
Wood	26.1	4.9	18.3	0.0	49.3	0.0	49.3
Waste Energy	0.0	14.6	4.0	0.0	18.6	13.9	32.6
Ethanol	0.0	0.0	0.0	44.2	44.2	0.0	44.2
Biodiesel	0.0	0.0	0.0	10.5	10.5	0.0	10.5
Landfill Gas	0.0	0.0	0.0	0.0	0.0	4.6	4.6
Electric Sales	178.2	246.4	55.2	8.9	488.6	-	-
Net Consumption	815.1	661.4	244.2	1,140.6	2,861.2	-	-
					Hydroelectric Generation (PS)	-3.5	-3.5
					Nuclear Generation	279.6	279.6
					Net Imported Electricity	207.2	207.2
					Primary Consumption	1,261.5	3,634.0

[a] Due to the derivation of synthetic gas fuel (SGF) from other petroleum product source processes, these have been accounted for in different fuel types (EIA 2023). These SGFs are not included in consumption summations and are presented for completeness only.

[b] 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.

[c] Total solar generation for New York State is a sum of the electric generation sector and the behind-the-meter solar from the *2023 Gold Book* (NYISO). Sectoral estimates for solar rely on using EIA SEDS estimates for sectoral contribution applied to the NYISO behind-the-meter value.

[d] For hydroelectric generation: “C” represents conventional, and “PS” represents pumped storage. These generation types are included with renewable and nonrenewable energy accounting, respectively.

As energy consumption has continued to increase since 2020, the supply chain from production to end use carefully experienced the return of demand for energy The following energy-specific observations emerged:

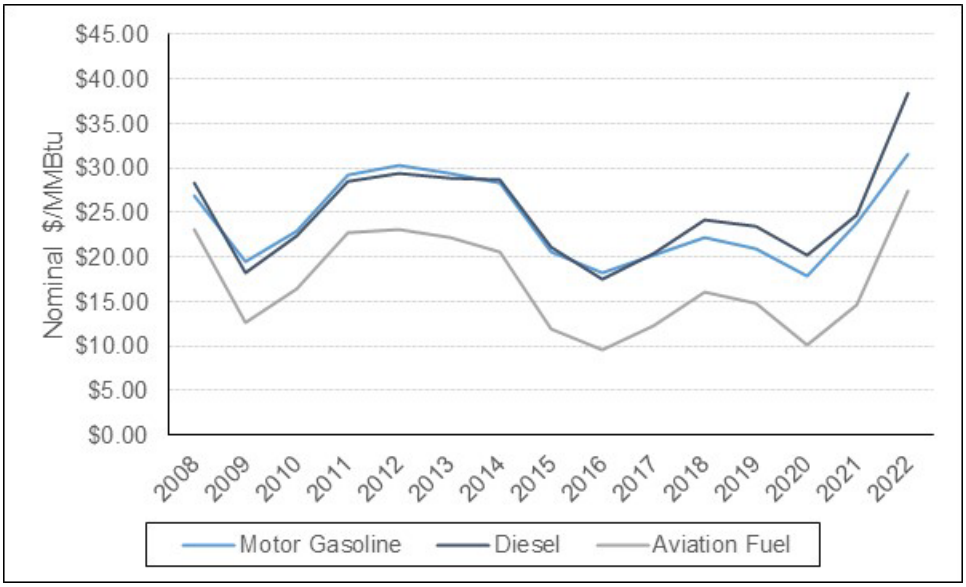
- Increased consumption of all fuels during 2022 compared to the prior year, with limited exceptions for pumped storage hydroelectric generation, nuclear generation, renewables generation, and net imported electricity.
    - Pumped storage hydroelectric generation was lower by 162.0% (by GWh) compared to the value reported for 2021.
    - Nuclear generation continued to decline (-14.0%) due to the shutdown of Entergy's Indian Point Unit 3 on April 30, 2021 (Entergy 2021).The 2022 energy profile dataset reflects this facility's first full year without nuclear generation.
    - Imported electricity declined by approximately 3% compared to 2021, likely accounted for by increases in generation from other sources such as natural gas, petroleum products, and solar.
- Increased renewables consumption during 2022, led by an increase in solar (32.0%) and wind (17.4%) generation alongside a decrease in conventional hydroelectric generation decreased by 4.6% during the same year.
- Consumption of distillate and residual fuel oils for electric generation sharply increased. This increased reliance on liquid petroleum products likely resulted from the elevated cost of natural gas during 2022, making the switch to liquid products more financially advantageous for generation facilities than prior years.
- Net energy consumption across the residential, commercial, and transportation sectors increased during 2022, reflecting returning energy demand. A decrease in net consumption for the industrial sector by approximately 3.9% likely resulted from the slow post-pandemic return to normal operations and potential challenges in supply chains to deliver needed goods for industrial processes.

3.2 New York State Energy Prices

Energy prices for 2022 reflect the challenges along the supply chain for energy products. Appendix B highlights that every sector experienced significant price increases compared to 2021. For some fuels, 2022 prices represented the highest energy prices over the past 15 years.

Transportation fuel, including motor gasoline and diesel, saw significant price increases for 2022 (Figure 2). Evaluating prices per million British thermal units (MMBtu) in nominal dollars, motor gasoline prices increased by approximately 32%, while diesel prices increased by approximately 56% compared to 2021. This year-to-year increase is significant, but is more apparent compared to prepandemic 2019 prices, with motor gasoline approximately 35% higher and diesel approximately 92% higher in 2022.

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

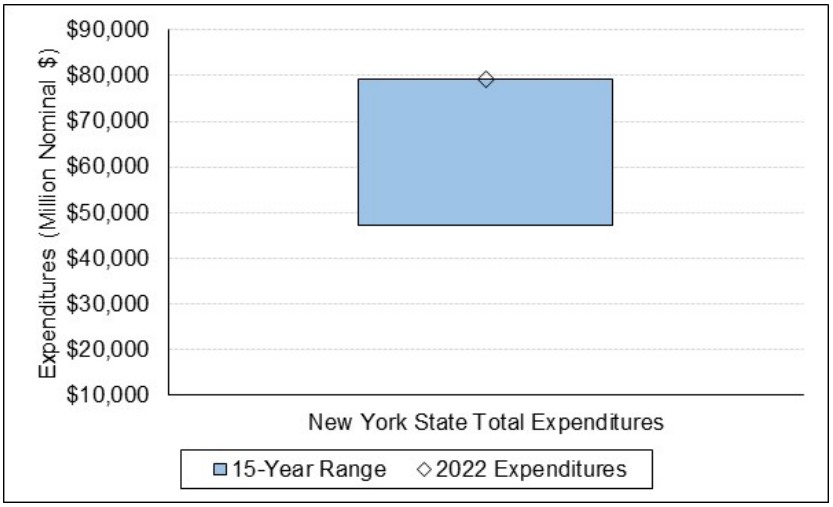


3.3 New York State Energy Expenditures

Energy expenditures reflect the annual consumption of fuel and the annual price. Appendix B highlights 2022 values and trends for specific energy products.

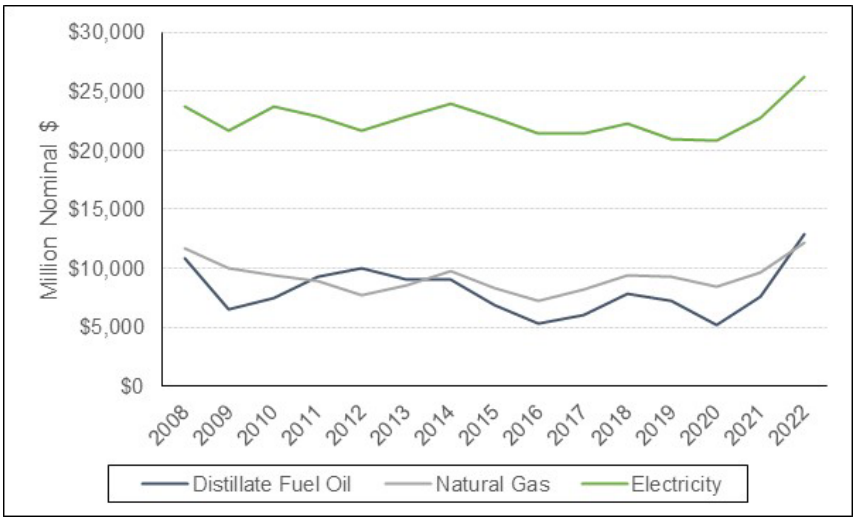
Expenditures increased significantly in 2022, consistent with the increases in consumption and prices during the same period (Figure 3). Increasing consumption, coupled with elevated prices led to substantially elevated total energy expenditures. Increases in expenditures for energy and fuels in New York State ranged between approximately 8% for propane to 156% for aviation fuel. The estimated out-of-state expenditures for 2022 increased approximately 25% overall to approximately $28.7 billion.

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



Expenditures for heating fuels also increased during 2022 (Figure 4), including distillate (71%), kerosene (47%), and natural gas (25%). Electricity expenditures increased by approximately 15%. Across all sectors and end uses, 2022 experienced high costs for the fuels and energy consumed in New York State.

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



3.4 New York State Sources of Energy

New York State relies on deliveries of various energy and fuel types via pipeline, marine, rail, highway, and transmission lines, with some production activities occurring in-state.

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

Table 2. New York State Sources of Energy and Production (TBtu)

Year	Conventional Hydroelectric Generation	Natural Gas	Crude Oil	Σ Bioenergy	Renewable Diesel	Solar	Wind	Geothermal	Total Production
2008	234.9	51.4	2.2	124.3	0.0	0.2	11.4	2.2	426.6
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	106.6	0.0	3.1	33.3	2.9	386.1
2015	214.4	17.9	1.6	122.0	0.0	4.9	33.0	2.9	396.7
2016	216.7	13.9	1.3	115.3	0.0	6.9	32.5	2.9	389.4
2017	240.1	11.8	1.1	114.2	0.0	8.7	34.3	2.8	412.9
2018	234.3	11.0	1.3	115.0	0.0	12.5	32.1	2.8	409.0
2019	238.0	11.3	1.6	114.8	0.0	17.8	35.2	2.7	421.5
2020	231.8	10.0	1.4	86.2	0.0	21.0	32.7	2.7	385.8
2021	223.4	10.0	1.5	88.1	0.0	28.0	32.0	2.7	385.7
2022	214.4	10.0	1.5	98.8	0.0	37.2	37.8	2.7	402.5
% Difference 2022 - 2021	**-4%**	**0%**	**0%**	**12%**	**N/A**	**33%**	**18%**	**1%**	**4%**

Notes:

[a] Σ Bioenergy represents 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 2022 compared to the prior year. The most significant contributors to this increase include solar, bioenergy, and wind, with growth rates of 33%, 12%, and 10%, 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 EIA SEDS datasets while offering a focused comparison point for New York State compared to two regional groupings. The first group of states represent neighboring states directly neighboring New York State:

- Connecticut
- Massachusetts
- Pennsylvania
- New Jersey
- Vermont
- New York State

The second group of states are the regional Petroleum Administration for Defense District (PADD) 1B: Central Atlantic States, which includes:

- Delaware
- District of Columbia
- Maryland
- New Jersey
- New York State
- 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, there are slight differences between the evaluations from NYSERDA and EIA.

4.1.1 National Consumption Comparison

Table 3 summarizes the 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 20204.

Energy/Fuel Type	NYS Ranking	Top Consuming State
Total Energy Consumption	8	TX
Coal	41	TX
Natural Gas	7	TX
Petroleum	5	TX
Nuclear	13	IL
Renewable Energy	7	CA

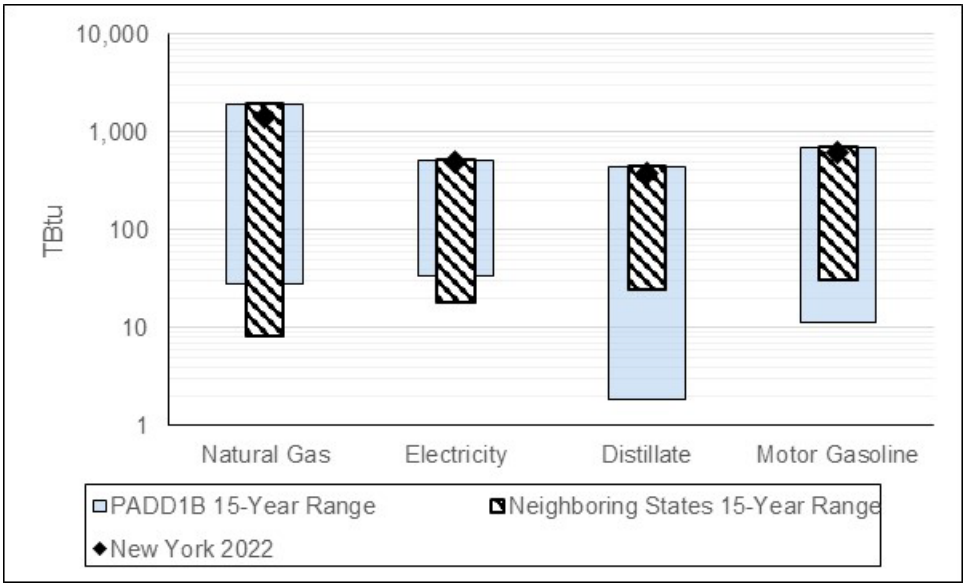
4.1.2 Regional Consumption Comparison

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 neighboring New York State. New York State typically ranks among the highest consumers of these select fuels for both regions. In 2022, New York State was the greatest consumer of distillate and motor gasoline in the region. For natural gas and electricity, Pennsylvania was the greatest consumer with New York State a close second.

Figure 5. Regional Consumption Summaries for Select Fuels

Source: EIA 20204.



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 connect through similar supply chains that could be influenced by weather events or other disruptions, prompting regional impacts across borders.

4.2 Energy Prices Comparisons

Fuels and energy prices are influenced by numerous factors across various scales. Global and regional current events, down to local conditions, affect price and demand levels. For a multistate perspective, the EIA evaluation provides a consolidated dataset with consistent data handling to showcase annual price points. Due to price variability, evaluating specific fuels for specific locations at defined times is strongly recommended. The annual profile presented in this report serves as an indicator for price trends in energy and fuels.

New York State ranks 13th nationally with a Total Energy price of $29.12 per MMBtu (EIA 2024). Table 4 presents a summary of 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 2014.

State	National Rank	Total Energy Price ($/MMBtu)
Connecticut	4	33.33
Massachusetts	5	32.60
District of Columbia	8	30.85
Vermont	9	30.85
Maryland	10	30.00
New York	*13*	*29.12*
Delaware	15	27.74
New Jersey	17	27.15
Pennsylvania	31	25.11

5 Conclusions and Looking Ahead

The following market drivers influenced the 2022 New York State energy landscape:

- Recovery from the COVID-19 pandemic
  - Continued demand recovery as energy product consumption increased in the U.S. and around the world.
  - Supply chain recovery progressed more slowly than demand due to various global factors.
- Russia's invasion of Ukraine
  - Restructured global energy supply chains through international sanctions on Russia that banned sales of petroleum products, natural gas, and LNG.
  - Created significant economic impacts on Russia and forced global supply chains to adjust, leading to substantial global demand that drove energy prices higher.

In New York State, global market trends were apparent through increased consumption and significantly higher energy prices, leading to greater energy expenses.

6 References

British Broadcasting Corporation (BBC). 2024. "Ukraine in Maps: Tracking the War with Russia." BBC World News: Europe, May 17. Accessed August 2024. https://www.bbc.com/news/world-europe-60506682

Entergy Corporation. 2021. "Entergy's Indian Point Unit 3 to Permanently Shut Down." News release. April 28. Accessed August 20, 2024. https://www.entergynewsroom.com/news/entergy-s-indian-point-unit-3-permanently-shut-down/

Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NAERC). 2023. "Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliot." October. Accessed December 2023. https://www.ferc.gov/sites/default/files/2024-02/24_Winter-Storm_Elliot_0207_UPDATE.pdf.

New York State Senate. 2023. "Legislation: The Laws of New York." Consolidated Laws of New York, Chapter 43-A Public Authorities, Article 8 Misc Authorities, Title 9 New York State Energy Research and Development Authority, Section 1854. Accessed August 2024. https://www.nysenate.gov/legislation/laws/PBA/1854.

National Oceanic and Atmospheric Administration (NOAA). 2022. "Damaging 2022 Atlantic Hurricane Season Draws to a Close." November 29. Accessed August 2024. https://www.noaa.gov/news-release/damaging-2022-atlantic-hurricane-season-draws-to-close

National Oceanic and Atmospheric Administration (NOAA). 2 024. "Degree Days Statistics." June 4. Accessed August 2024. https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/.

New York State Independent System Operator (NYISO). 2023. Load & Capacity Data Report: Annual NYS Generation Summary and Forecast. NYISO. https://www.nyiso.com/library#reports

New York State. 2019. "Our Roadmap for Cleaner Air and Healthier Communities." Accessed August 2024. https://climate.ny.gov/

Office of Cybersecurity, Energy Security, and Emergency Response (CESER), U.S. Department of Energy (DOE). 2022. "CESER Guidance on Developing a State Energy Profile." Accessed July 2024. https://www.energy.gov/ceser/state-energy-security-plan-sesp-resources

S&P Global. 2022. "Gas Supply Concerns in Europe Put US at Center Stage as Flexible LNG Supplier." Gas Daily. February 25, pp. 2-3.

S&P Global. 2022. "The Great Supply Chain Disruption: Why It Continues in 2022." S&P Global Market Intelligence, January. Accessed August 2024. https://www.spglobal.com/marketintelligence/en/mi/info/0122/great-supply-chain-disruption.html

The White House. 2022. “Fact Sheet: United States Imposes First Tranche of Swift and Severe Costs on Russia.” The White House Briefing Room*, February 22. Accessed August 2024. https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/22/fact-sheet-united-states-imposes-first-tranche-of-swift-and-severe-costs-on-russia/

The White House. 2022. “Fact Sheet: United States Imposes First Tranche of Swift and Severe Costs on Russia.” The White House Briefing Room, February 22. Accessed August 2024. https://www.whitehouse.gov/briefing-room/statements-releases/

U.S. Energy Information Administration (EIA). 2022a. “Energy Prices Rose More than Other Commodities in 2021.” Today in Energy, January 3. Accessed August 2024. https://www.eia.gov/todayinenergy/detail.php?id=50718

U.S. Energy Information Administration (EIA). 2022b. “Crude Oil Prices Rise above $100 per Barrel after Russia’s Further Invasion into Ukraine.” Today in Energy, March 4. Accessed August 2024. https://www.eia.gov/todayinenergy/detail.php?id=51498

U.S. Energy Information Administration (EIA). 2022c. “U.S. to Release 30 million Barrels of Crude Oil from its Strategic Petroleum Reserve.” Today in Energy, March 8. Accessed August 2024. https://www.eia.gov/todayinenergy/detail.php?id=51538

U.S. Energy Information Administration (EIA). 2023b. “Global Liquefied Natural Gas Trade Volumes Set a New Record in 2022.” Today in Energy, July 5. Accessed September 23, 2024. https://www.eia.gov/todayinenergy/detail.php?id=57000

U.S. Energy Information Administration (EIA). 2024a. “State Energy Data System.” June 28. Accessed July 2024. https://www.eia.gov/state/seds/

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. These data are foundational elements for the NYSERDA's 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. Often, these adjustments apply to historical data points as well, resulting in variations year-to-year for the data presented in each Patterns and Trends report.

This link provides a detailed log of any changes that EIA has applied to data or methodology: EIA Data Changes (https://www.eia.gov/state/seds/seds-data-changes.php?sid=NY).

For the 2022 datasets, EIA noted that prices associated with several petroleum products changed due to the suspension of the EIA-782 survey. The new method relies on state-level regression models. Any specific petroleum product with historical price changes should reference this information for details.

Another significant change highlighted within the Patterns and Trends report for the 2022 data update relates to EIA's methodology for calculating the primary consumption of electricity generation from noncombustible renewable energy sources, including geothermal, hydroelectric power, solar, and wind. The update involves using a captured energy approach instead of the fossil fuel equivalency approach. s Details are provided on the EIA website: EIA Methodology Changes (https://www.eia.gov/state/seds/seds-change/index.php/).

EIA has 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 2022 data update, NYSERDA will maintain the fossil fuel equivalency method for conversion. Although EIA's decision provides strong guidance for this change, various applications exist for each conversion method. NYSERDA will evaluate the impacts on Patterns and Trends and other research efforts. Consequently, primary energy consumption for New York State in the Patterns and Trends report for this 2022 update will align with past issues. The report will present details for each energy type using both conversions methods. Patterns and Trends

A.2. New York State Research and Development Authority Methodology Changes and Updates

The number of data sources used for NYSERDA's annual Patterns and Trends report requires careful attention to the changes from those data sources, along with an evaluation of how NYSERDA has historically analyzed, and reported these results.

Establishing a representative estimate for aviation fuel consumption in New York State has posed challenges. Aviation fuel includes both jet fuel and aviation gasoline. Historically, NYSERDA observed a low estimate for aviation fuel consumption from EIA beginning in 1981. To address this, NYSERDA calculated the total aviation fuel consumed in New York State and neighboring New Jersey (NJ). NYSERDA then factored this two-state summation down using a percentage of aviation miles based on revenue between the states. This method worked well until approximately 2010, when estimates from EIA and NYSERDA became nearly identical. Since 2010, the estimates from NYSERDA and EIA have generally remained within +/-10% of each other.

As a result of this continued comparability, NYSERDA decided to avoid over analysis and use the sources in Table A-1 for the history of aviation fuel consumption.

Table A-1. Sources of Aviation Fuels Consumption Estimates Definition

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

Appendix A References

U.S. Energy Information Administration (EIA). 2024a. "State Energy Data System." June 28. Accessed July 2024. https://www.eia.gov/state/seds/

Appendix B. New York State Energy Profile Supplemental Visuals

New York State Energy Profile—2022 Highlights

Primary Energy Consumption (TBtu)

New York Statewide Primary Consumption	3,634.0	↑
By Sector:		
Residential	636.9	↑
Commercial	415.0	↑
Industrial	189.0	↓
Transportation	1,131.7	↑
Electric Generation	1,261.5	↓
By Fuel Type:		
Petroleum	1,309.0	↑
Natural Gas	1,402.3	↑
Nuclear	279.6	↓
Renewable	292.1	↑
Net Imported Electricity	207.2	↓
Bioenergy	141.1	↑
Coal	6.1	↑
Pumped Storage	-3.5	↓

Average Energy Prices (Nominal Dollars)

Gasoline (all grades; per gallon)	$3.794	↑
Heating Oil (per gallon)	$3.865	↑
Natural Gas (per thousand cf)		
Residential	$16.432	↑
Commercial	$10.370	↑
Industrial	$11.366	↑
Electricity (per kWh)		
Residential	$0.221	↑
Commercial	$0.182	↑
Industrial	$0.076	↑

2022 Market Influences

1. Energy prices increased due to slower production recovery compared to demand following the pandemic.

2. Russia's invasion of Ukraine at the end of February 2022 influenced global markets and changed global supply chains.

3. Unique market conditions persisted through 2022 and resulted in low regional fuels inventories.

Net Energy Consumption (TBtu)

New York Statewide Net Consumption	2,861.2	↑
By Sector:		
Residential	815.1	↑
Commercial	661.4	↑
Industrial	244.2	↓
Transportation	1,140.6	↑
By Fuel Type:		
Petroleum	1,292.6	↑
Natural Gas	912.1	↑
Electricity	488.6	↑
Renewable	39.1	↑
Bioenergy	122.6	↑
Coal	6.1	↑

cf = cubic feet
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:	143,211.0	↑
Net Consumption by Sector:		
Residential	52,227.0	↑
Commercial	72,206.0	↑
Industrial	16,178.0	↓
Transportation	2,600.0	↑
In-State Generation:	125,632.1	↓
Generation by Fuel Type:		
Nuclear	26,812.0	↓
Natural Gas	64,432.6	↑
Petroleum	170.5	↑
Wind	4,825.1	↑
Solar	4,745.4	↑
Bioenergy	2,368.3	↓
Pumped Storage	-441.1	↓
Conventional Hydroelectric Generation	27,354.3	↓
Net Imported Electricity	26,440.0	↓

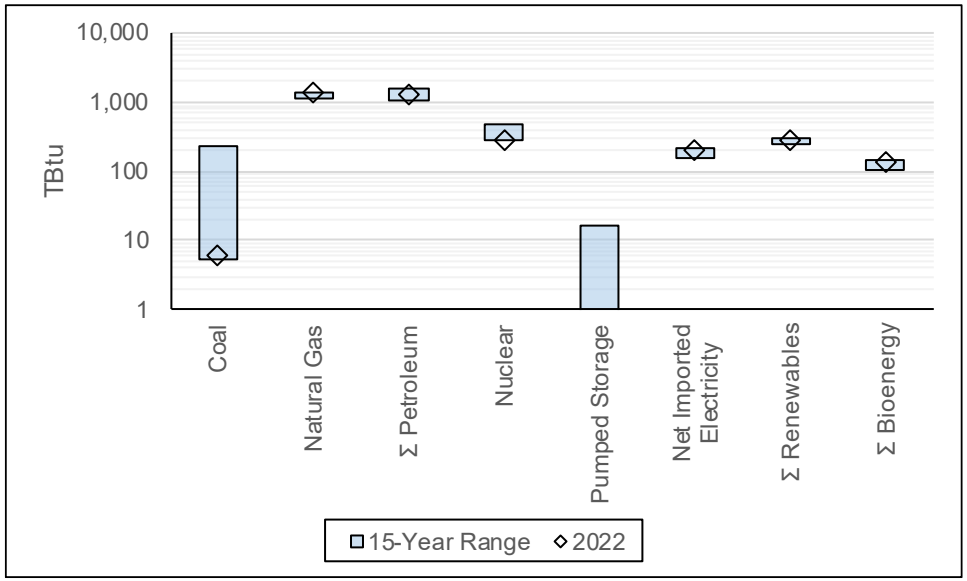
Expenditures (Billion Nominal Dollars)

New York Statewide Total:	$79.3	↑
Estimated Out-of-State	$28.7	↑
Expenditures by Sector:		
Residential	$23.0	↑
Commercial	$18.0	↑
Industrial	$2.7	↑
Transportation	$35.6	↑

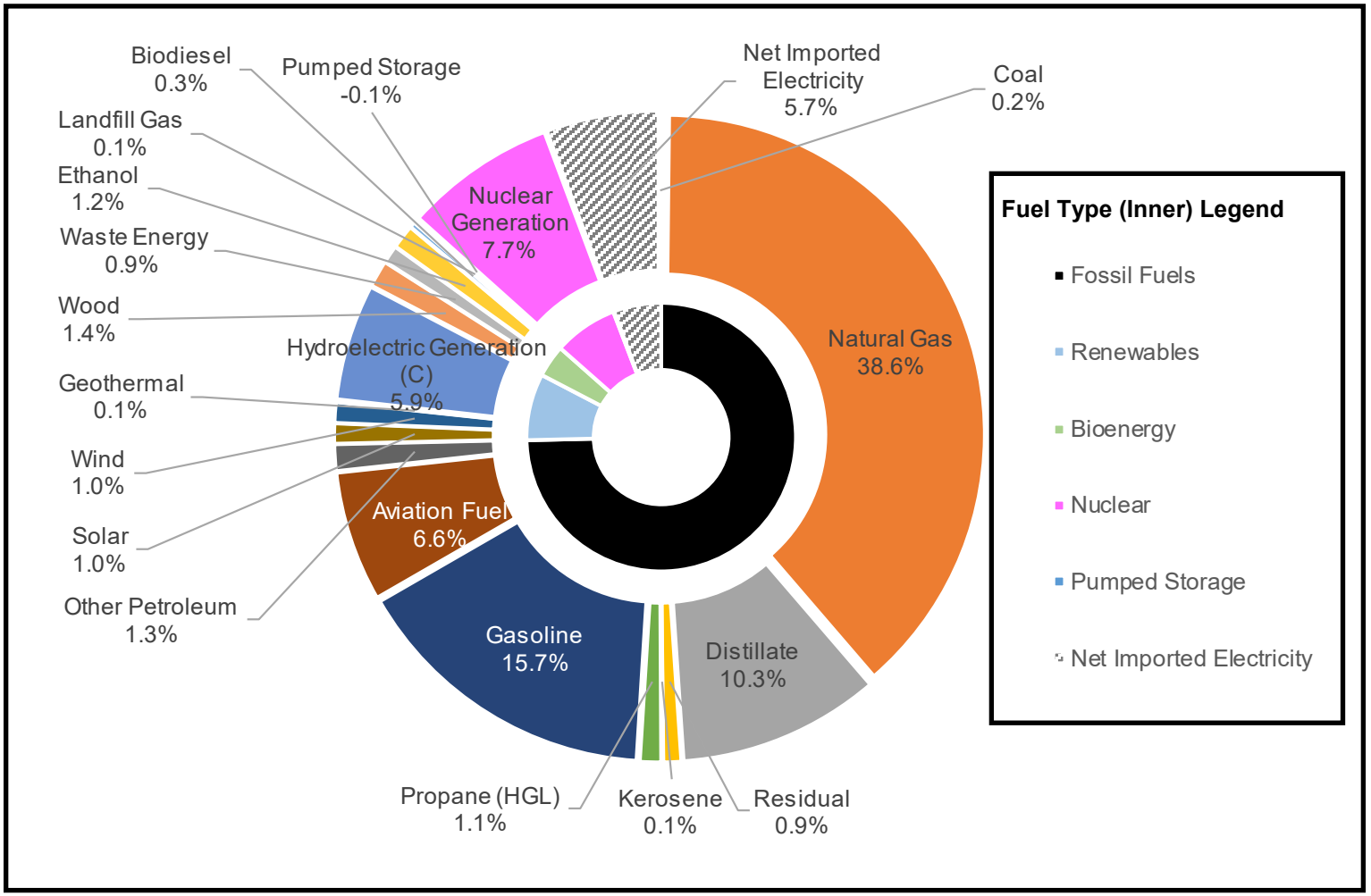
New York State Energy Profile—Consumption Totals

New York State Primary Consumption 15-Year Summary

Year	Coal		Natural Gas		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
2008	229.0	10,157.0	1,205.1	1,179.2	1,572.3	295,891.4	451.6	43,209.0	16.4	1,790.0	213.3	23,343.7	248.6	143.9
2009	156.0	7,032.0	1,166.6	1,141.5	1,484.4	282,235.7	454.8	43,485.0	13.8	1,525.0	211.4	23,361.1	262.4	107.6
2010	167.1	7,367.0	1,224.5	1,197.0	1,476.5	282,940.0	437.6	41,870.0	8.0	889.0	223.7	24,912.4	244.0	118.5
2011	125.2	5,604.0	1,247.8	1,215.0	1,376.8	265,695.0	446.8	42,695.0	6.4	720.6	220.0	24,882.9	273.4	124.9
2012	72.9	3,137.0	1,261.0	1,221.9	1,334.0	257,592.0	427.3	40,775.0	6.4	730.7	222.0	25,516.2	244.4	124.3
2013	68.7	3,041.0	1,315.3	1,270.8	1,325.2	256,380.0	467.7	44,756.0	6.5	765.6	220.5	25,901.6	253.5	128.3
2014	64.7	2,867.0	1,392.4	1,347.9	1,376.4	266,616.0	450.1	43,039.0	7.1	849.4	173.8	20,789.1	256.6	132.0
2015	41.2	1,761.0	1,396.7	1,352.1	1,377.5	266,732.0	466.5	44,603.0	6.8	824.8	164.1	19,809.1	255.2	147.5
2016	29.7	1,175.0	1,336.5	1,295.0	1,378.6	268,163.0	434.8	41,571.0	6.9	835.6	184.1	22,358.0	258.9	141.8
2017	19.6	738.0	1,276.9	1,236.1	1,375.3	268,298.0	441.0	42,167.0	6.5	795.3	197.5	24,319.1	285.9	143.2
2018	16.7	635.0	1,393.7	1,349.1	1,418.2	276,675.0	448.7	42,919.0	6.5	811.0	215.9	26,765.9	281.8	148.8
2019	13.6	536.0	1,337.8	1,296.3	1,380.3	270,287.0	468.5	44,865.0	4.6	583.0	182.7	23,134.0	293.8	148.0
2020	5.7	222.0	1,305.3	1,262.4	1,064.2	209,925.0	401.4	38,430.0	5.0	635.0	156.9	19,990.0	288.2	119.9
2021	5.4	211.0	1,359.4	1,317.3	1,228.0	242,175.0	325.1	31,177.0	5.5	711.9	213.4	27,394.0	286.1	129.9
2022	6.1	241.0	1,402.3	1,358.8	1,309.0	256,273.0	279.6	26,812.0	-3.5	-441.1	207.2	26,440.0	292.1	141.1
% Difference 2022–2021	14.4%	14.2%	3.2%	3.1%	6.6%	5.8%	-14.0%	-14.0%	-162.3%	-162.0%	-2.9%	-3.5%	2.1%	8.7%



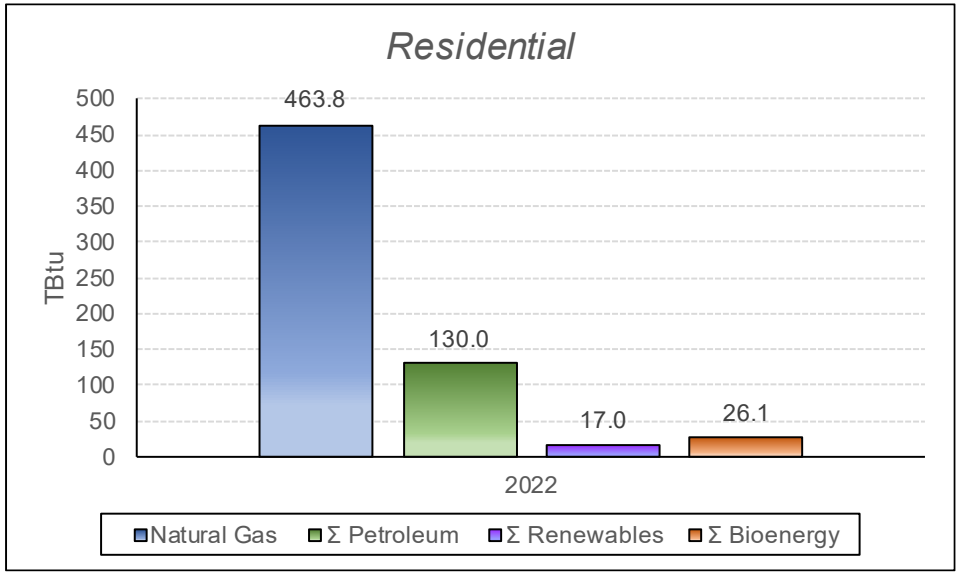
New York State Energy Profile—Primary Consumption Summary

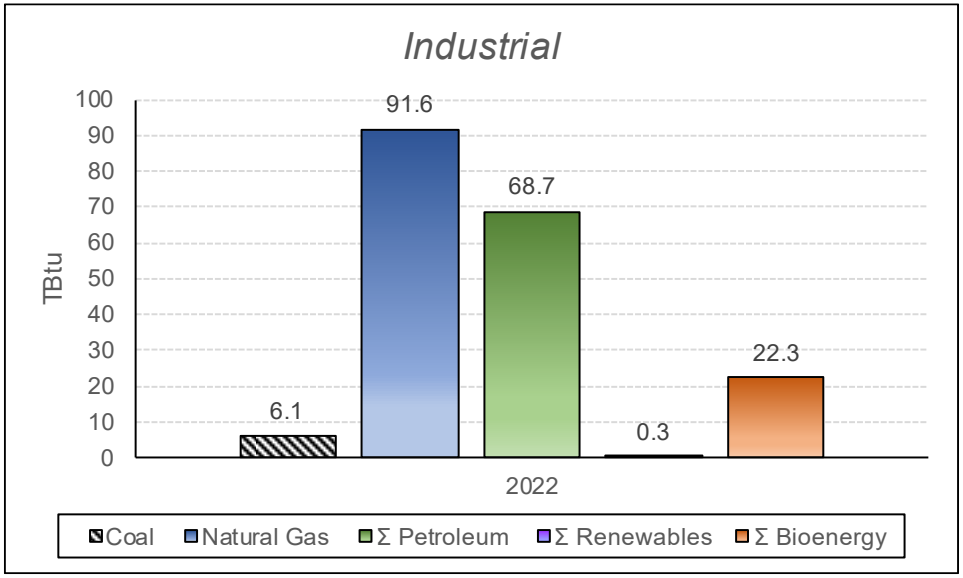


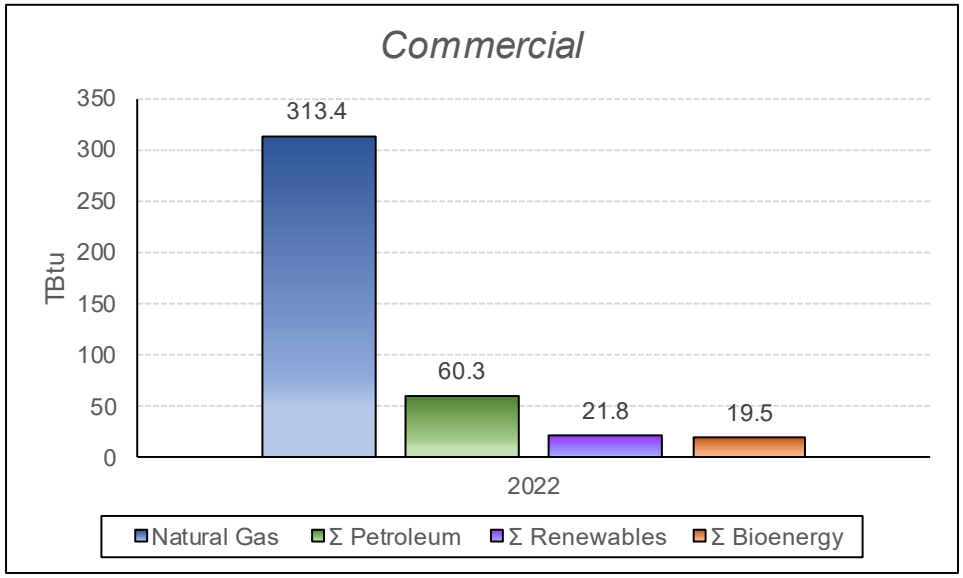
Note:

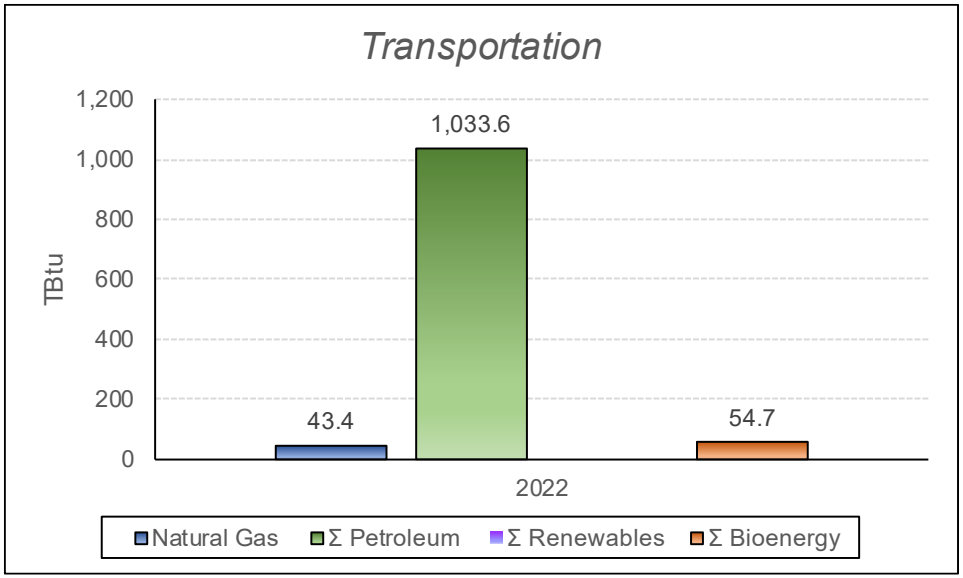
1. The “Net Imported Electricity” category reflects an estimate of electricity generated outside of New York that is brought into New York for consumption. This reflects multiple regions and System Operators, but also includes a range of generation types. See NYSERDA Patterns & Trends for additional discussion.

New York State Energy Profile—Primary Consumption Summary by Sector





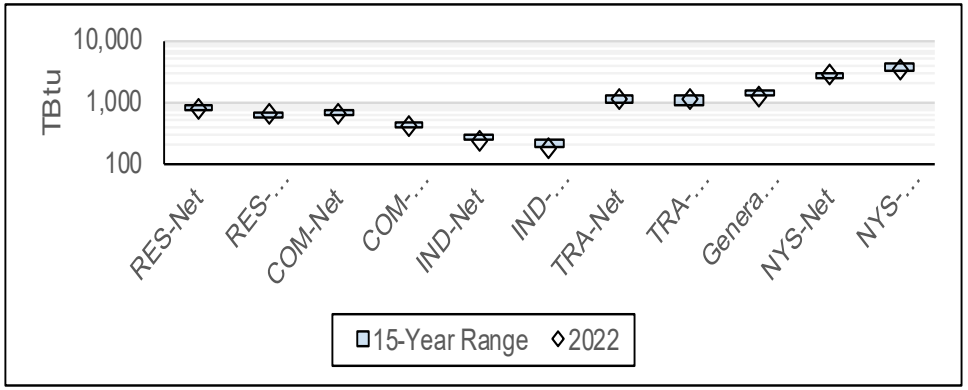




New York State Energy Profile—Primary and Net Consumption Summary by Sector

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
2008	814.9	647.6	708.0	443.8	284.4	234.3	1,171.0	1,161.0	1,595.6	2,978.2	4,080.2
2009	746.6	582.0	682.7	425.6	255.1	209.3	1,152.5	1,142.2	1,499.7	2,836.9	3,857.0
2010	737.3	563.5	680.0	416.3	251.1	205.1	1,198.5	1,188.6	1,531.7	2,866.9	3,899.9
2011	731.8	557.0	678.2	417.5	259.9	214.1	1,124.2	1,114.1	1,521.3	2,794.1	3,821.3
2012	706.0	533.0	630.6	371.2	252.1	205.4	1,102.9	1,093.5	1,489.0	2,691.6	3,692.1
2013	754.2	581.0	661.7	401.2	265.0	203.9	1,115.2	1,105.4	1,494.2	2,796.1	3,785.6
2014	810.7	640.2	663.9	402.8	265.2	203.7	1,176.6	1,166.8	1,439.5	2,916.4	3,853.0
2015	828.2	654.2	663.0	400.3	267.0	205.4	1,170.0	1,160.4	1,435.2	2,928.3	3,855.4
2016	747.5	574.1	644.3	383.2	262.0	201.6	1,214.6	1,205.2	1,407.0	2,868.4	3,771.1
2017	756.5	589.1	648.0	391.0	258.2	197.5	1,225.1	1,215.7	1,352.7	2,887.9	3,745.8
2018	859.4	681.4	675.9	414.0	262.4	200.7	1,234.6	1,224.5	1,409.7	3,032.2	3,930.3
2019	843.3	672.2	666.0	409.8	260.1	200.3	1,206.6	1,197.0	1,350.0	2,976.1	3,829.2
2020	769.6	591.3	603.0	367.6	244.8	188.1	921.8	913.1	1,286.5	2,539.2	3,346.7
2021	805.0	627.0	633.0	394.4	254.0	196.3	1,056.0	1,047.6	1,287.3	2,748.0	3,552.8
2022	815.1	636.9	661.4	415.0	244.2	189.0	1,140.6	1,131.7	1,261.5	2,861.2	3,634.0
% Difference 2022–2021	*1.3%*	*1.6%*	*4.5%*	*5.2%*	*-3.9%*	*-3.7%*	*8.0%*	*8.0%*	*-2.0%*	*4.1%*	*2.3%*



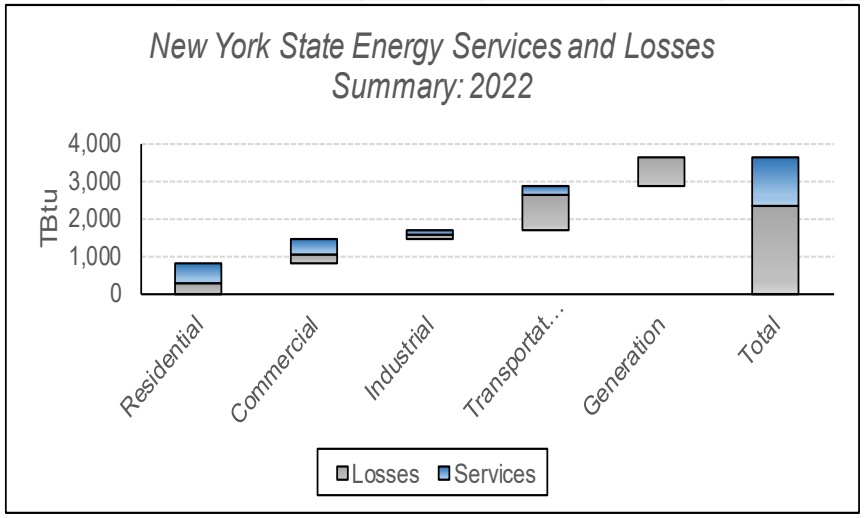
Notes:

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
2008	529.7	285.2	460.2	247.8	139.3	145.0	245.9	925.1	1,102.0	1,375.1	2,705.1
2009	485.3	261.3	443.7	238.9	125.0	130.1	242.0	910.5	1,020.1	1,296.0	2,560.9
2010	479.3	258.1	442.0	238.0	123.0	128.1	251.7	946.8	1,033.0	1,296.0	2,604.0
2011	475.7	256.1	440.8	237.4	127.4	132.6	236.1	888.1	1,027.1	1,279.9	2,541.3
2012	458.9	247.1	409.9	220.7	123.5	128.6	231.6	871.3	1,000.6	1,223.9	2,468.2
2013	490.2	264.0	430.1	231.6	129.9	135.2	234.2	881.0	989.5	1,284.4	2,501.3
2014	527.0	283.8	431.5	232.4	129.9	135.2	247.1	929.5	936.7	1,335.5	2,517.5
2015	538.3	289.9	431.0	232.1	130.9	136.2	245.7	924.3	927.1	1,345.9	2,509.6
2016	485.9	261.6	418.8	225.5	128.4	133.6	255.1	959.5	902.7	1,288.1	2,483.0
2017	491.7	264.8	421.2	226.8	126.5	131.7	257.3	967.8	857.9	1,296.7	2,449.1
2018	558.6	300.8	439.3	236.6	128.6	133.8	259.3	975.3	898.1	1,385.7	2,544.6
2019	548.1	295.2	432.9	233.1	127.5	132.7	253.4	953.2	853.2	1,361.9	2,467.3
2020	500.3	269.4	391.9	211.0	119.9	124.8	193.6	728.2	807.5	1,205.7	2,140.9
2021	523.3	281.8	411.5	221.6	124.4	129.5	221.8	834.2	804.8	1,280.9	2,271.9
2022	529.8	285.3	429.9	231.5	119.6	124.5	239.5	901.0	772.7	1,318.9	2,315.1
% Difference 2022–2021	*1.3%*	*1.3%*	*4.5%*	*4.5%*	*-3.9%*	*-3.9%*	*8.0%*	*8.0%*	*-4.0%*	*3.0%*	*1.9%*



Notes:

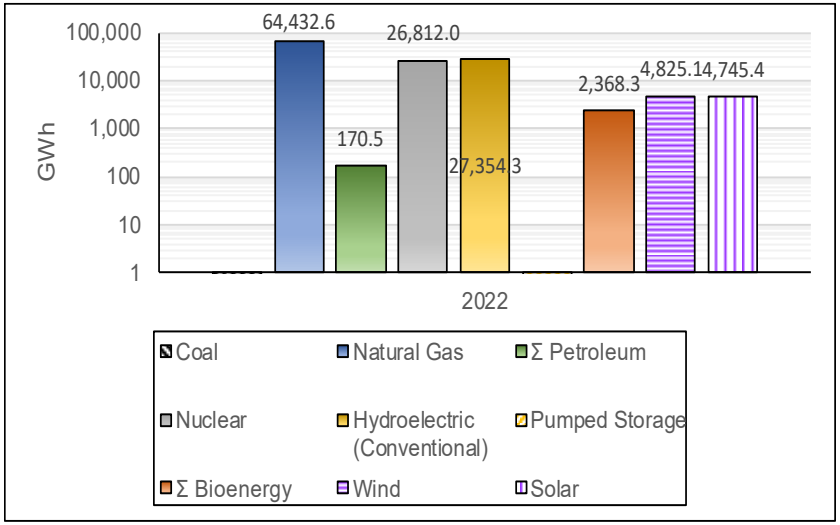
1. Electric losses are calculated as the difference between energy input for electricity generation and energy from retail electricity sales.
2. Sectoral estimates are calculated based on Lawrence Livermore National Laboratory end-use efficiency factors:

- 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	Petroleum Products (Σ)	Nuclear	Conventional Hydroelectric Generation	Pumped Storage	Bioenergy			Wind	Solar
							Wood	Landfill Gas	Waste Energy		
2008	19,154.1	46,845.1	4,000.6	43,209.0	25,711.0	1,790.0	560.0	533.0	1,903.0	1,250.7	17.0
2009	12,758.9	44,625.1	2,828.7	43,485.0	26,420.0	1,525.0	340.0	648.0	1,900.0	2,266.3	29.0
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	53.0
2011	9,426.2	52,713.2	1,234.2	42,695.0	27,634.1	720.6	209.6	735.1	1,878.4	2,828.1	85.5
2012	4,551.0	62,072.7	605.8	40,775.0	24,572.3	730.7	310.9	736.4	1,897.4	2,991.6	175.1
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	250.8
2014	4,325.4	57,506.9	2,259.3	43,039.0	25,974.0	849.4	538.6	789.4	1,866.0	3,985.8	375.0
2015	2,046.2	59,919.1	1,991.9	44,603.0	25,879.4	824.8	422.0	744.7	1,861.5	3,983.8	590.3
2016	1,492.8	59,697.6	675.8	41,571.0	26,314.1	835.6	292.5	747.7	1,840.9	3,943.3	838.7
2017	567.4	50,270.2	635.8	42,167.0	29,554.2	795.3	288.3	730.1	1,900.1	4,219.2	1,074.3
2018	692.0	53,593.1	1,677.8	42,919.0	29,045.0	811.0	203.4	647.6	1,878.4	3,985.1	1,552.8
2019	425.7	49,450.9	1,994.4	44,865.0	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	38,430.0	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	31,177.0	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	26,812.0	27,354.3	-441.1	0.0	589.5	1,778.8	4,825.1	4,745.4
% Difference 2022–2021	N/A	8.4%	7.3%	-14.0%	-4.6%	-162.0%	N/A	-9.7%	-2.9%	17.4%	32.0%



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
2008	2,996.0	26,978.7	69,999.7	43,209.0	1,790.0	23,343.7
2009	2,888.0	28,715.3	60,212.7	43,485.0	1,525.0	23,361.1
2010	2,916.0	26,863.2	66,753.4	41,870.0	889.0	24,912.4
2011	2,823.2	30,547.7	63,373.5	42,695.0	720.6	24,882.9
2012	2,944.7	27,738.9	67,229.5	40,775.0	730.7	25,516.2
2013	3,002.9	29,421.3	62,793.4	44,756.0	765.6	25,901.6
2014	3,194.0	30,334.8	64,091.7	43,039.0	849.4	20,789.1
2015	3,028.2	30,453.6	63,957.1	44,603.0	824.8	19,809.1
2016	2,881.1	31,096.1	61,866.2	41,571.0	835.6	22,358.0
2017	2,918.5	34,847.7	51,473.4	42,167.0	795.3	24,319.1
2018	2,729.4	34,582.9	55,962.9	42,919.0	811.0	26,765.9
2019	2,647.9	36,855.0	51,871.0	44,865.0	583.0	23,134.0
2020	2,233.0	36,363.0	56,429.0	38,430.0	635.0	19,990.0
2021	2,485.2	36,380.2	59,620.7	31,177.0	711.9	27,394.0
2022	2,368.3	36,924.8	64,603.1	26,812.0	-441.1	26,440.0
% Difference 2022–2021	-4.7%	1.5%	8.4%	-14.0%	-162.0%	-3.5%

Notes:

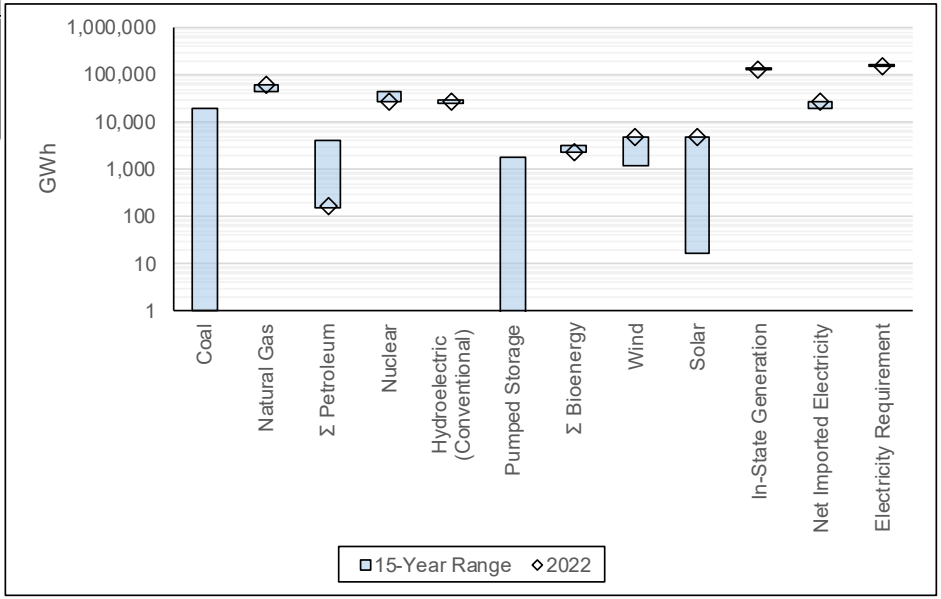
1. Definitions for grouped categories are as follows:

   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.

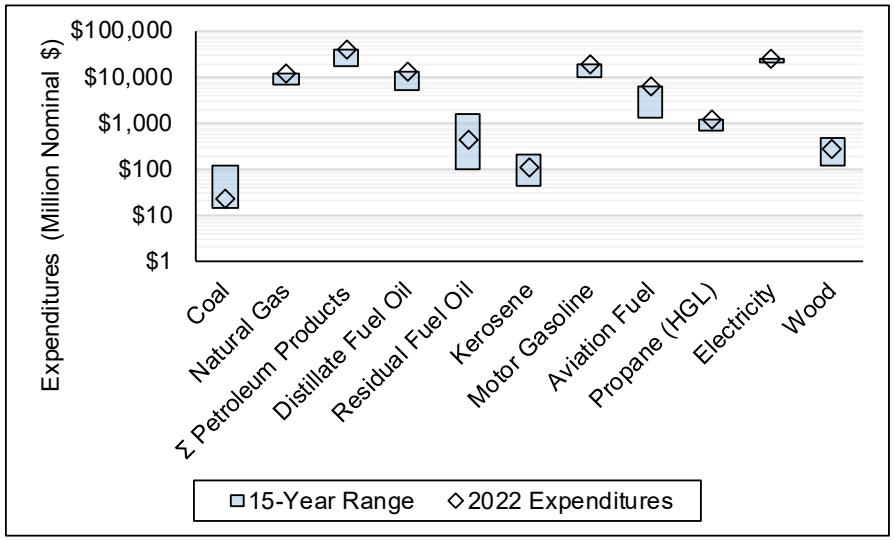
3. Estimate for solar generation represents the sum of utility generation as well as generation from residential, commercial, and industrial sectors as "behind-the-meter".



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
2008	$116.47	$11,633.29	$37,237.19	$10,841.97	$1,530.25	$126.21	$18,617.79	$5,150.90	$970.06	$23,726.89	$474.57	*$73,188.41*
2009	$97.73	$9,982.06	$24,598.20	$6,480.81	$1,174.26	$141.39	$13,428.56	$2,534.04	$839.14	$21,625.06	$124.76	*$56,427.81*
2010	$113.43	$9,415.61	$29,933.13	$7,467.43	$1,502.91	$213.22	$16,078.83	$3,786.64	$884.10	$23,735.25	$157.88	*$63,355.31*
2011	$123.33	$8,953.45	$36,369.62	$9,301.02	$1,392.38	$165.41	$19,298.88	$5,277.06	$934.86	$22,887.17	$184.11	*$68,517.67*
2012	$114.33	$7,724.00	$36,782.81	$9,958.10	$1,038.67	$92.38	$19,552.63	$5,404.22	$736.81	$21,683.82	$171.33	*$66,476.29*
2013	$94.20	$8,616.43	$35,393.89	$9,000.05	$1,022.30	$83.47	$18,980.94	$5,488.55	$818.58	$22,834.84	$218.96	*$67,158.31*
2014	$79.34	$9,718.17	$35,274.91	$9,085.69	$773.96	$144.09	$18,936.95	$5,239.00	$1,095.22	$23,949.47	$216.04	*$69,237.94*
2015	$77.52	$8,330.12	$24,618.08	$6,885.87	$266.24	$56.23	$13,447.75	$3,203.69	$758.29	$22,748.45	$247.24	*$56,021.41*
2016	$50.57	$7,238.25	$21,327.97	$5,308.44	$204.28	$60.93	$12,353.93	$2,684.37	$716.02	$21,388.68	$168.92	*$50,174.39*
2017	$54.19	$8,250.89	$24,615.84	$6,027.35	$217.75	$45.45	$13,868.68	$3,581.93	$874.68	$21,365.98	$182.68	*$54,469.59*
2018	$43.57	$9,460.43	$29,367.79	$7,878.43	$243.28	$68.11	$15,477.13	$4,555.23	$1,145.61	$22,234.39	$245.97	*$61,352.15*
2019	$30.40	$9,317.21	$27,139.65	$7,270.59	$119.29	$94.21	$14,394.40	$4,254.93	$1,006.24	$20,882.63	$241.35	*$57,611.24*
2020	$14.80	$8,468.95	$17,694.29	$5,160.95	$101.74	$77.16	$10,166.57	$1,351.15	$836.71	$20,870.71	$124.03	*$47,172.80*
2021	$18.04	$9,699.77	$26,536.10	$7,574.25	$245.26	$72.96	$14,969.12	$2,568.53	$1,105.98	$22,782.88	$158.30	*$59,195.10*
2022	$22.42	$12,118.10	$40,639.87	$12,912.14	$423.43	$106.89	$19,435.85	$6,574.69	$1,186.88	$26,246.27	$273.71	*$79,300.38*
% Difference 2022–2021	24.3%	24.9%	53.1%	70.5%	72.6%	46.5%	29.8%	156.0%	7.3%	15.2%	72.9%	34.0%



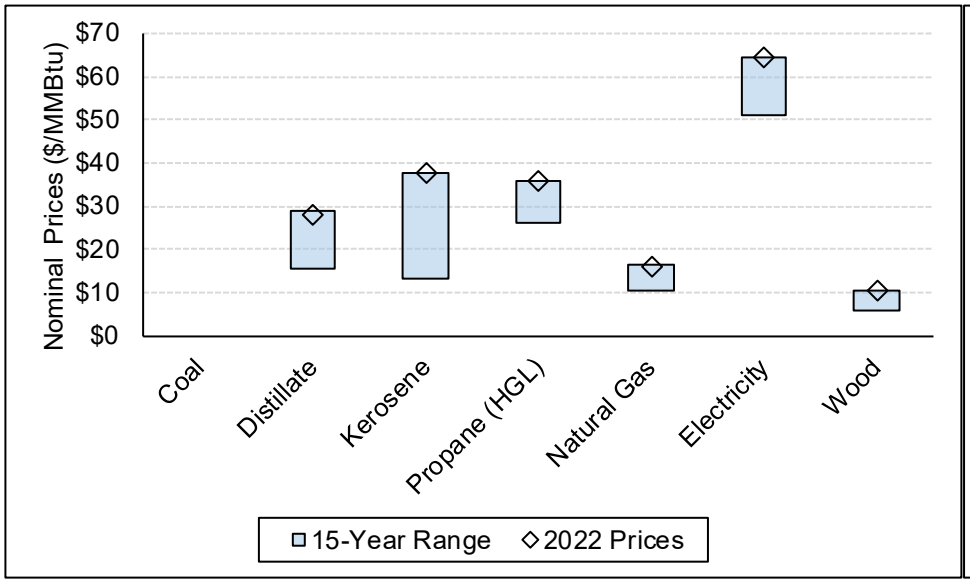
Estimated Out-of-state Energy Expenditures (Million Nominal Dollars)

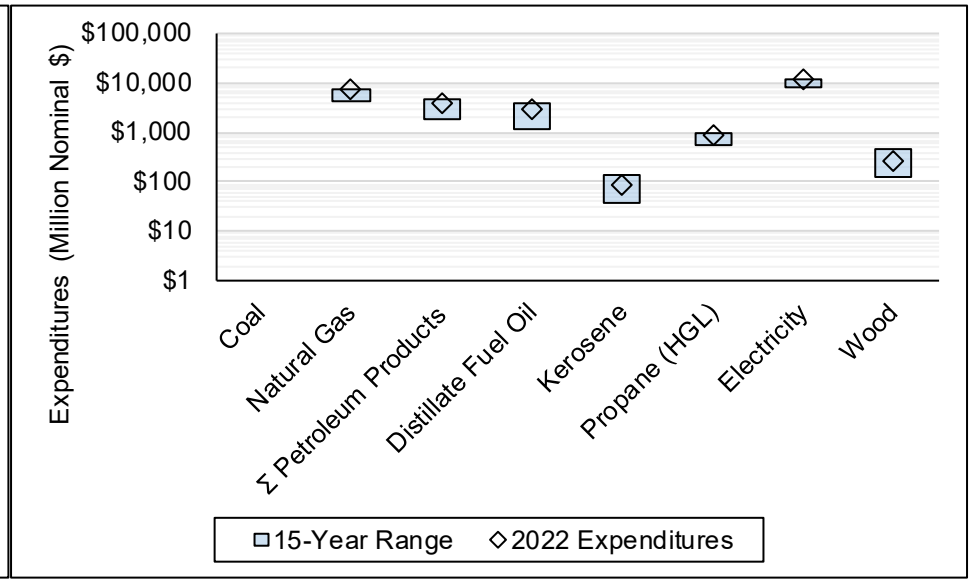
Year	Coal	Natural Gas	Motor Gasoline	Other Petroleum Products	Electricity	Total
2008	$99.00	$7,374.94	$14,285.93	$15,408.51	$13,079.05	$50,247.43
2009	$83.07	$5,344.86	$9,939.71	$8,631.45	$8,190.50	$32,189.60
2010	$96.42	$5,018.96	$12,588.00	$11,050.48	$9,146.14	$37,899.99
2011	$104.83	$4,520.34	$15,569.67	$14,266.78	$8,328.52	$42,790.14
2012	$97.18	$3,820.54	$15,910.07	$14,401.61	$7,379.67	$41,609.07
2013	$80.07	$4,062.23	$15,248.90	$13,603.91	$8,493.90	$41,489.00
2014	$67.44	$4,906.27	$14,750.44	$12,654.77	$9,572.78	$41,951.71
2015	$65.89	$3,680.71	$9,576.59	$7,382.93	$7,195.71	$27,901.83
2016	$42.99	$2,942.62	$8,801.89	$5,966.75	$5,957.82	$23,712.07
2017	$46.07	$3,625.65	$10,299.70	$7,326.92	$6,202.24	$27,500.57
2018	$37.04	$4,508.09	$11,657.45	$9,796.17	$7,750.80	$33,749.55
2019	$25.84	$3,850.78	$10,422.60	$8,603.19	$5,414.10	$28,316.51
2020	$12.58	$3,026.66	$6,023.00	$3,985.38	$4,498.77	$17,546.39
2021	$12.58	$3,592.25	$7,675.58	$5,067.78	$6,742.33	$23,090.52
2022	$12.58	$4,225.04	$8,077.75	$5,567.37	$10,857.38	$28,740.13
% Difference 2022–2021	0.0%	17.6%	5.2%	9.9%	61.0%	24.5%

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	¢/kWh	$/MMBtu	$/Cord
2008			$24.89	342.53	$27.06	365.31	$31.28	285.69	$16.42	$16.86	$53.66	18.31	$8.59	$171.80
2009			$18.93	260.56	$20.83	281.21	$28.36	259.02	$14.73	$15.10	$51.29	17.50	$6.45	$129.00
2010			$21.89	301.14	$23.77	320.90	$30.08	274.73	$13.72	$14.04	$54.93	18.74	$7.61	$152.20
2011			$25.83	355.22	$28.13	379.76	$33.78	308.52	$13.35	$13.64	$53.52	18.26	$9.15	$183.00
2012			$28.71	394.69	$29.62	399.87	$31.54	288.07	$12.56	$12.87	$51.63	17.62	$10.19	$203.80
2013			$28.28	388.78	$29.68	400.68	$31.25	285.42	$12.07	$12.41	$55.08	18.79	$9.98	$199.60
2014			$27.59	379.23	$29.84	402.84	$34.49	315.01	$12.13	$12.53	$58.83	20.07	$9.73	$194.60
2015			$19.28	264.87	$16.65	224.78	$27.53	251.44	$10.84	$11.25	$54.33	18.54	$6.71	$134.20
2016			$16.57	227.64	$13.27	179.15	$27.04	246.97	$10.51	$10.92	$51.51	17.58	$5.73	$114.60
2017			$18.43	252.62	$16.60	224.10	$32.05	293.10	$11.66	$12.09	$52.84	18.03	$6.41	$128.20
2018			$20.30	278.88	$23.47	316.85	$34.88	318.99	$11.98	$12.44	$54.28	18.52	$7.09	$141.80
2019			$19.25	264.46	$22.39	302.27	$30.00	274.36	$12.22	$12.71	$52.58	17.94	$6.82	$136.40
2020			$15.75	216.38	$14.54	196.29	$26.18	239.42	$12.38	$12.86	$53.82	18.36	$5.64	$112.80
2021			$18.59	255.39	$22.93	309.56	$31.74	290.27	$13.35	$13.87	$57.10	19.48	$6.77	$135.40
2022			$28.13	386.45	$37.92	511.92	$35.68	326.30	$15.83	$16.43	$64.71	22.08	$10.48	$209.60
% Difference 2022–2021	N/A	N/A	51.3%	51.3%	65.4%	65.4%	12.4%	12.4%	18.6%	18.5%	13.3%	13.3%	54.8%	54.8%

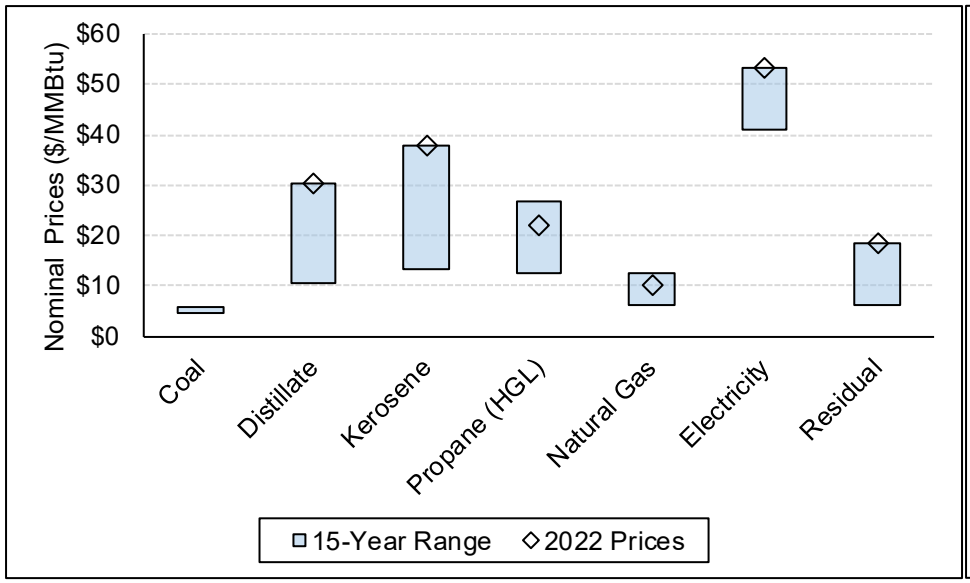


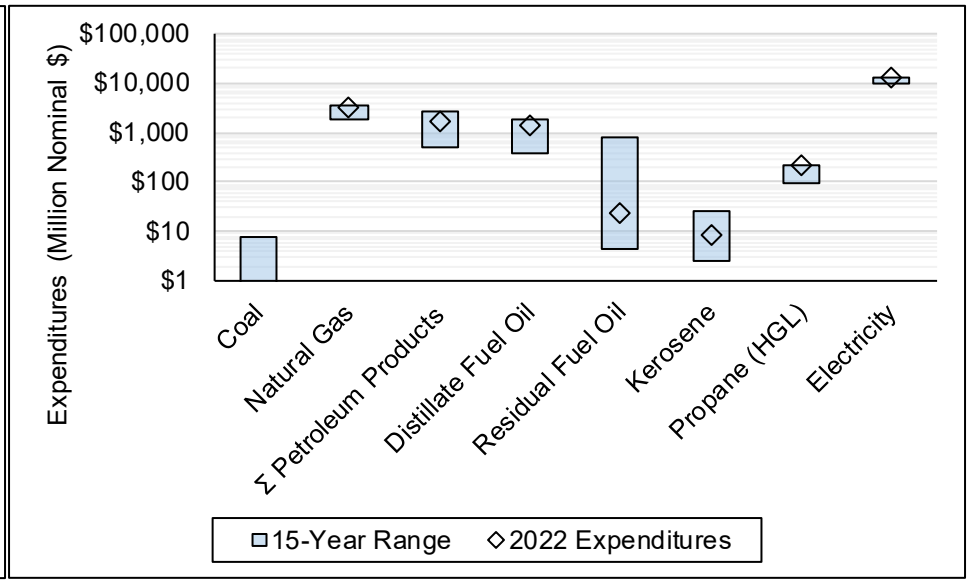


New York State Energy Profile—Commercial Fuels Prices and Expenditures

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	¢/kWh	$/MMBtu	¢/Gal
2008	$4.49	$103.43	$23.58	324.51	$27.06	365.31	$25.52	233.08	$12.59	$12.93	$49.22	16.79	$13.27	83.43
2009	$5.80	$132.54	$15.03	206.88	$20.83	281.21	$20.59	188.06	$10.49	$10.75	$45.36	15.48	$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	16.31	$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	15.81	$17.41	109.46
2012			$25.80	354.69	$29.62	399.87	$21.33	194.81	$7.60	$7.79	$44.13	15.06	$18.36	115.43
2013			$25.05	344.38	$29.68	400.68	$21.01	191.89	$7.73	$7.95	$45.00	15.35	$16.84	105.87
2014			$21.81	299.78	$29.84	402.84	$22.22	202.94	$8.04	$8.31	$47.25	16.12	$14.75	92.73
2015			$14.51	199.34	$16.65	224.78	$13.40	122.39	$6.64	$6.89	$44.86	15.31	$7.83	49.23
2016			$11.47	157.58	$13.27	179.15	$12.60	115.08	$6.00	$6.23	$42.35	14.45	$6.10	38.35
2017			$13.66	187.24	$16.60	224.10	$16.48	150.71	$6.65	$6.90	$43.23	14.75	$7.80	49.04
2018			$17.09	234.78	$23.47	316.85	$17.93	163.97	$7.13	$7.40	$42.50	14.50	$10.26	64.50
2019			$15.74	216.24	$22.39	302.27	$14.29	130.69	$6.98	$7.26	$41.20	14.06	$9.78	61.49
2020			$10.61	145.76	$14.54	196.29	$13.52	123.64	$6.66	$6.92	$42.67	14.56	$7.72	48.54
2021			$17.03	233.96	$22.93	309.56	$20.71	189.40	$7.66	$7.96	$47.11	16.07	$11.49	72.24
2022			$30.23	415.30	$37.92	511.92	$21.98	201.01	$9.99	$10.37	$53.31	18.19	$18.59	116.88
% Difference 2022–2021	N/A	N/A	77.5%	77.5%	65.4%	65.4%	6.1%	6.1%	30.4%	30.3%	13.2%	13.2%	61.8%	61.8%

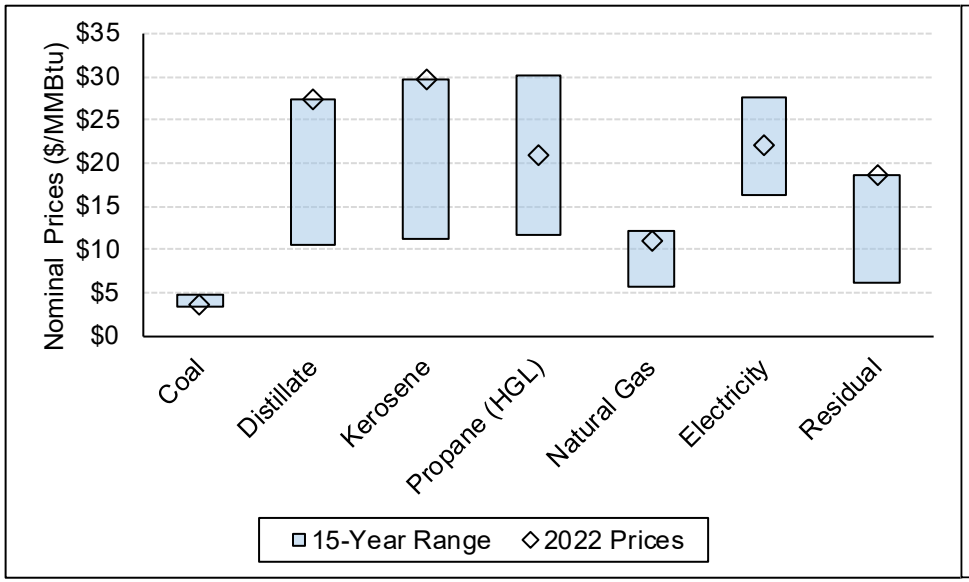


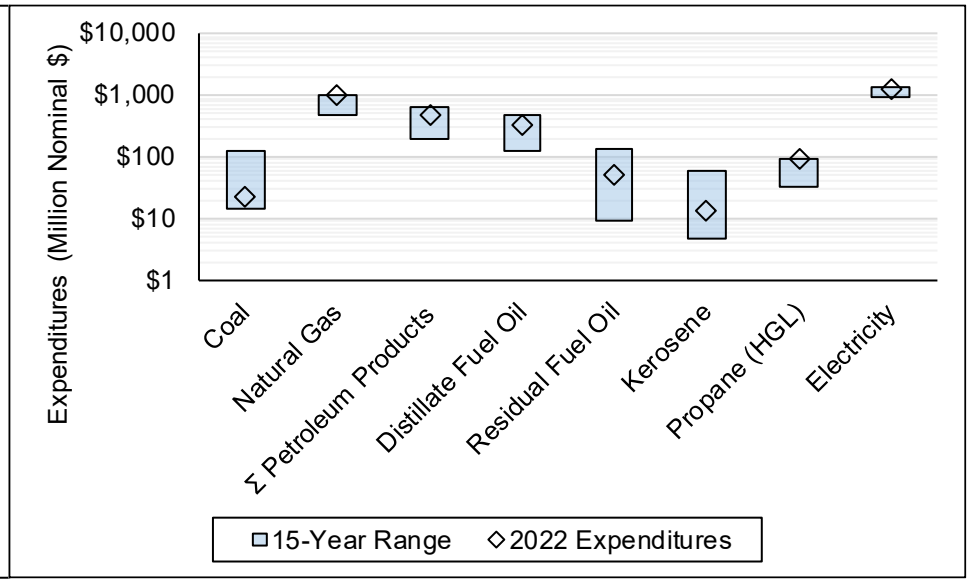


New York State Energy Profile—Industrial Fuels Prices and Expenditures

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	¢/kWh	$/MMBtu	¢/Gal
2008	$3.44	$83.57	$23.77	327.12	$22.73	306.86	$30.16	275.46	$12.04	$12.37	$27.53	9.39	$13.27	83.43
2009	$4.01	$96.55	$14.37	197.79	$15.14	204.39	$24.91	227.51	$9.32	$9.55	$24.54	8.37	$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	8.79	$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	7.83	$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	6.69	$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	6.59	$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	6.58	$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	6.31	$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	6.03	$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	5.92	$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	6.02	$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	5.61	$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	5.54	$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	6.34	$11.49	72.24
2022	$3.65	$89.53	$27.52	378.07	$29.72	401.22	$20.98	191.87	$10.95	$11.37	$22.13	7.55	$18.59	116.88
% Difference 2022–2021	8.6%	8.2%	91.2%	91.2%	78.9%	78.9%	6.1%	6.1%	34.9%	34.7%	19.0%	19.0%	61.8%	61.8%

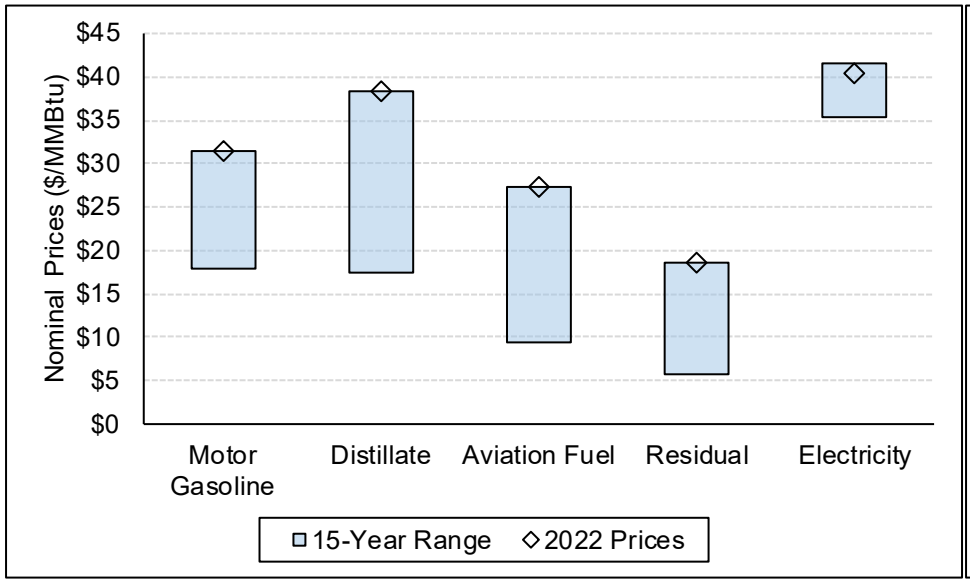


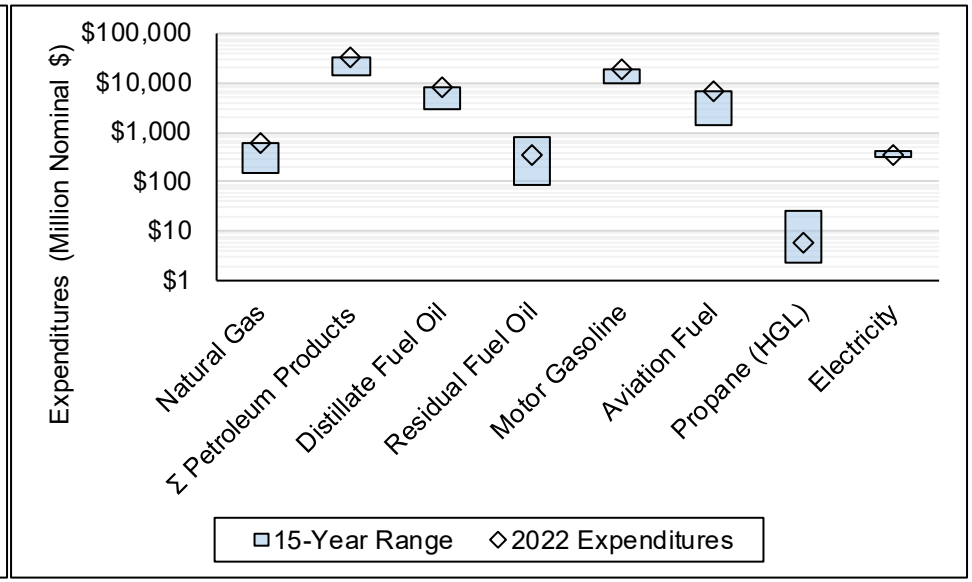


New York State Energy Profile—Transportation Fuels Prices and Expenditures

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	¢/kWh
2008	$26.79	326.97	$28.28	389.19	$23.13	312.26	$12.08	75.95	$37.05	12.64
2009	$19.41	235.74	$18.27	251.47	$12.64	170.64	$8.24	51.80	$38.49	13.13
2010	$22.98	277.84	$22.32	307.06	$16.43	221.81	$10.86	68.28	$40.28	13.74
2011	$29.16	351.86	$28.52	392.22	$22.77	307.40	$14.81	93.11	$39.41	13.45
2012	$30.20	364.05	$29.45	404.87	$23.16	312.66	$15.40	96.82	$41.63	14.20
2013	$29.43	354.70	$28.83	396.34	$22.15	299.03	$15.52	97.57	$40.01	13.65
2014	$28.37	341.79	$28.66	393.94	$20.61	278.24	$13.19	82.93	$40.49	13.82
2015	$20.47	246.61	$21.04	289.05	$11.99	161.87	$7.46	46.90	$37.97	12.96
2016	$18.13	218.38	$17.54	240.97	$9.49	128.12	$5.60	35.21	$35.33	12.05
2017	$20.12	242.06	$20.31	278.39	$12.21	164.84	$7.55	47.47	$37.12	12.67
2018	$22.23	267.50	$24.18	332.19	$16.00	216.00	$9.99	62.81	$35.57	12.14
2019	$20.97	252.24	$23.50	322.85	$14.77	199.40	$10.00	62.87	$36.00	12.28
2020	$17.86	214.83	$20.20	277.51	$10.04	135.54	$7.29	45.83	$35.57	12.14
2021	$23.87	287.01	$24.66	338.78	$14.70	198.45	$10.97	68.97	$37.13	12.67
2022	$31.56	379.40	$38.47	528.50	$27.35	369.23	$18.65	117.25	$40.55	13.84
% Difference 2022–2021	32.2%	32.2%	56.0%	56.0%	86.1%	86.1%	70.0%	70.0%	9.2%	9.2%





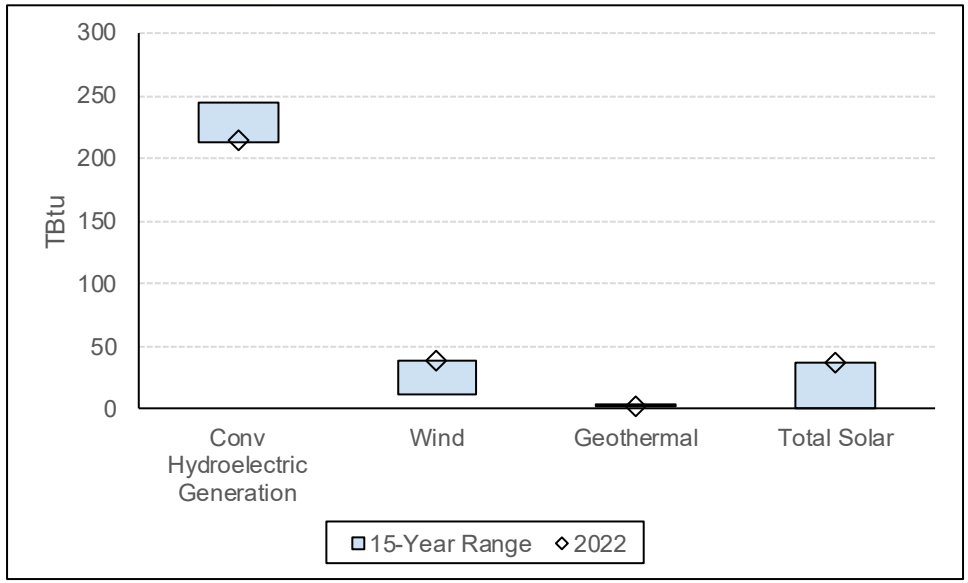
New York State Energy Profile—Renewables

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
2008	234.9 [87.7]	25,711.0	11.4 [4.3]	1,250.7	2.2 [0.8]			0 [0]	0.0	17.0	24.0	17.0	24.0	
2009	239.1 [90.1]	26,420.0	20.5 [7.7]	2,266.3	2.5 [1]			0 [0]	0.0	29.0	33.0	29.0	33.0	
2010	217.4 [82.6]	24,214.0	23.3 [8.9]	2,596.2	2.8 [1.1]			0 [0]	0.0	53.0	56.0	53.0	56.0	
2011	244.3 [94.3]	27,634.1	25 [9.6]	2,828.1	3.3 [1.3]			0.1 [0]	6.5	79.0	86.0	85.5	92.0	
2012	213.8 [83.8]	24,572.3	26 [10.2]	2,991.6	3 [1.2]			0.5 [0.2]	53.1	122.0	149.0	175.1	202.0	
2013	218.2 [87.5]	25,631.0	30.1 [12.1]	3,539.5	3 [1.2]			0.4 [0.2]	51.8	199.0	207.0	250.8	274.0	
2014	217.2 [88.6]	25,974.0	33.3 [13.6]	3,985.8	2.9 [1.2]			0.4 [0.2]	51.0	324.0	350.0	375.0	421.0	
2015	214.4 [88.3]	25,879.4	33 [13.6]	3,983.8	2.9 [1.2]			0.4 [0.2]	52.3	538.0	591.0	590.3	689.0	
2016	216.7 [89.8]	26,314.1	32.5 [13.5]	3,943.3	2.9 [1.2]			0.4 [0.2]	53.7	785.0	877.0	838.7	1,014.0	924.1
2017	240.1 [100.8]	29,554.2	34.3 [14.4]	4,219.2	2.8 [1.2]			0.4 [0.2]	47.3	1,027.0	1,186.0	1,074.3	1,364.0	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	0.4 [0.2]	48.8	1,504.0	1,501.0	1,552.8	1,795.0	1,574.9
2019	238 [102.8]	30,141.3	35.2 [15.2]	4,453.6	2.7 [1.2]			0.4 [0.2]	52.1	2,208.0	1,868.0	2,260.1	2,375.0	2,196.2
2020	231.8 [100.7]	29,521.0	32.7 [14.2]	4,163.0	2.7 [1.2]			0.4 [0.2]	48.0	2,631.0	2,308.0	2,679.0	3,130.0	2,616.9
2021	223.4 [97.8]	28,674.7	32 [14]	4,110.7	2.7 [1.2]			0.4 [0.2]	49.8	3,545.0	2,719.0	3,594.8	3,862.0	3,439.3
2022	214.4 [93.3]	27,354.3	37.8 [16.5]	4,825.1	2.7 [1.2]			0.9 [0.4]	110.4	4,635.0	3,492.0	4,745.4	5,257.0	4,239.2
% Difference 2022–2021	-4.0%	-4.6%	18.1%	17.4%	0.6%	N/A	N/A	123.0%	121.7%	30.7%	28.4%	32.0%	36.1%	23.3%

Notes:

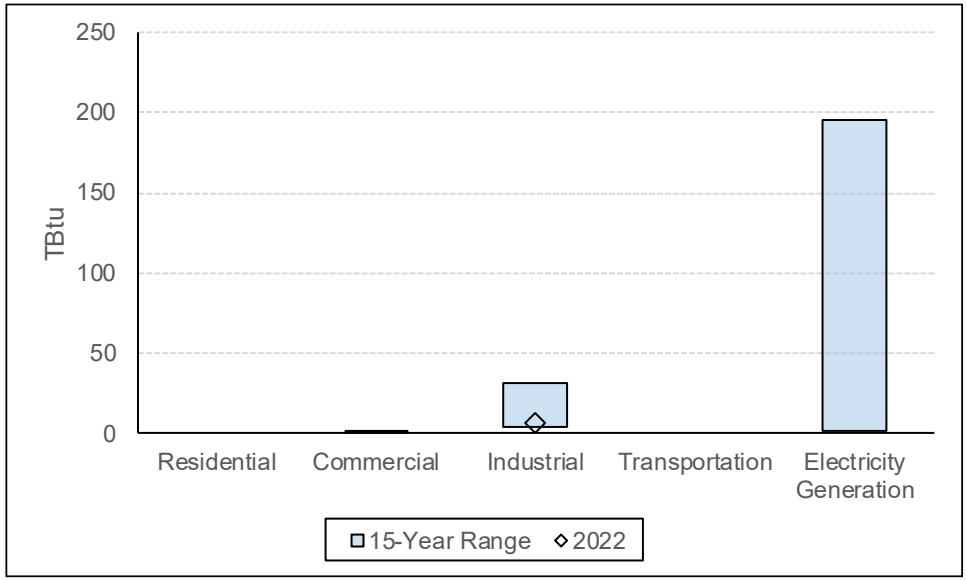
1. Source data from NYISO Gold Book(s) (NYISO, 2023).
2. Conversions utilized are presented as fossil fuel equivalency method. Captured energy method is bracketed. Graphics present Fossil Fuel Equivalency method.
3. Source is EIA SEDS with conversions presented by NYSERDA.
4. NYGATS = New York Generation 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
2008			1.7	68.0	31.6	1,205.0			195.6	8,885.0
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				
% Difference 2022–2021	N/A	N/A	N/A	N/A	14.4%	14.2%	N/A	N/A	N/A	N/A



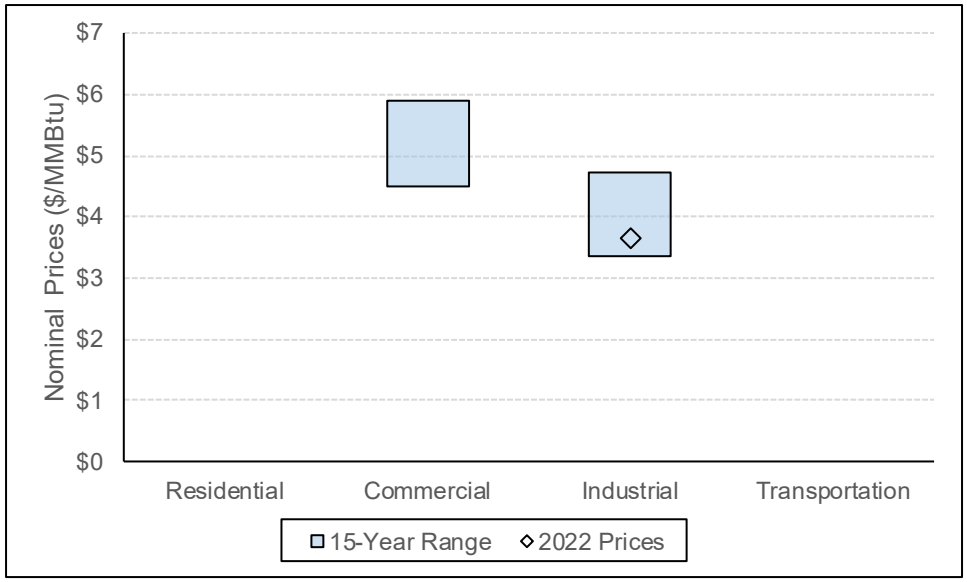
New York State Energy Profile—Coal

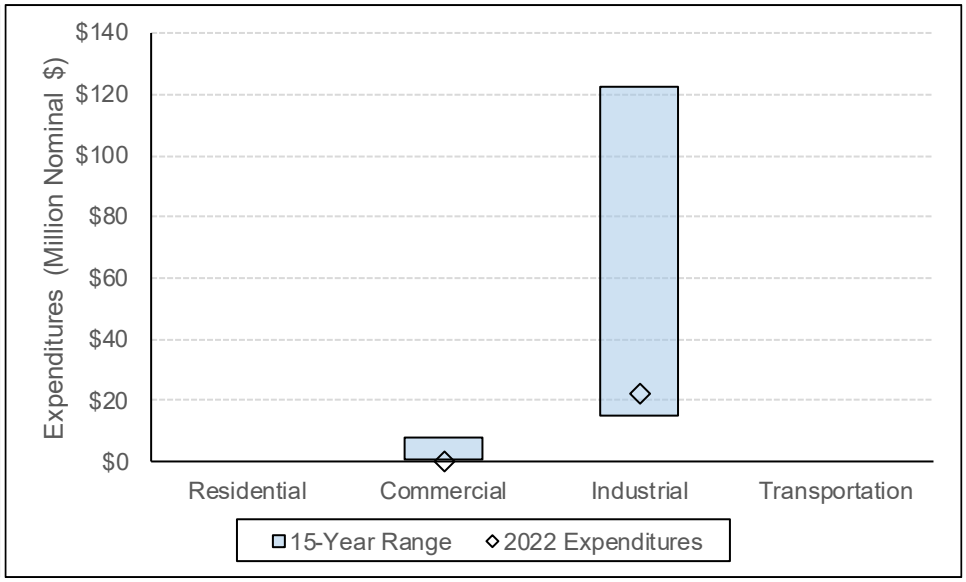
Coal 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008		$4.49	$3.44	
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	
% Difference 2022–2021	N/A	N/A	8.6%	N/A

Coal 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2008		$7.68	$108.79	
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	
% Difference 2022–2021	N/A	N/A	24.3%	N/A

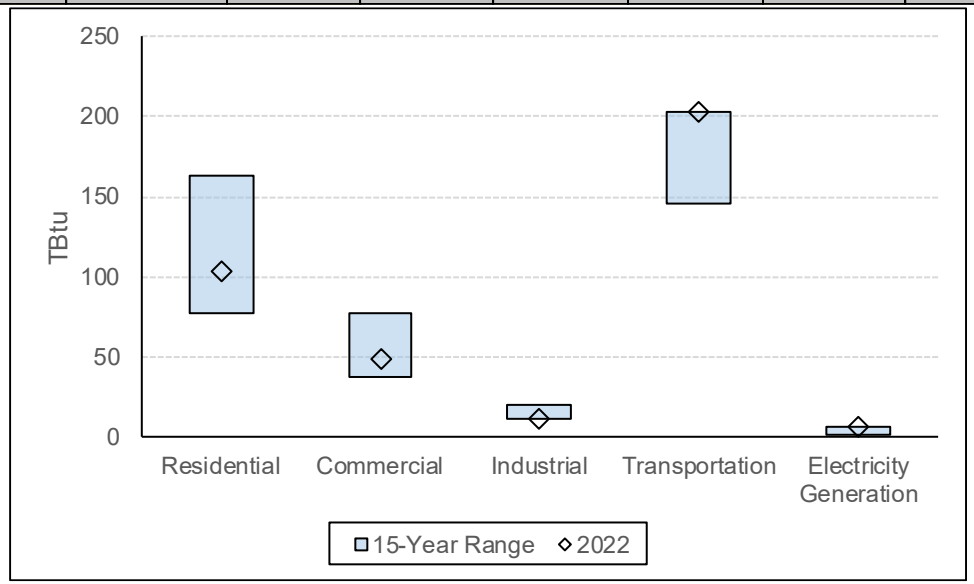




New York State Energy Profile—Distillate Fuel Oil

Distillate 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
2008	162.6	28,139.0	77.7	13,447.0	19.7	3,409.0	158.9	27,071.0	4.7	809.0
2009	119.9	20,755.0	69.7	12,062.0	16.9	2,931.0	157.5	27,231.0	4.3	736.0
2010	114.2	19,781.0	58.0	10,050.0	13.1	2,274.0	161.2	27,890.0	3.7	637.0
2011	106.5	18,454.0	59.5	10,310.0	16.2	2,809.0	158.2	27,325.0	1.9	331.0
2012	126.5	21,943.0	49.6	8,602.0	14.4	2,502.0	152.6	26,370.0	2.3	392.0
2013	104.9	18,199.0	53.2	9,223.0	13.1	2,274.0	146.0	25,263.0	2.9	503.0
2014	113.4	19,682.0	48.6	8,434.0	11.5	2,001.0	155.3	26,872.0	4.8	833.0
2015	121.8	21,140.0	55.5	9,634.0	11.7	2,031.0	162.3	28,072.0	4.8	835.0
2016	89.3	15,511.0	46.6	8,095.0	10.8	1,872.0	173.2	29,982.0	2.0	344.0
2017	83.6	14,519.0	45.7	7,935.0	11.0	1,904.0	174.2	30,164.0	1.5	264.0
2018	107.7	18,696.0	46.7	8,111.0	11.2	1,953.0	185.1	32,013.0	4.5	790.0
2019	105.7	18,350.0	48.2	8,364.0	14.7	2,544.0	171.5	29,656.0	2.2	382.0
2020	77.7	13,495.0	37.1	6,437.0	13.4	2,330.0	160.4	27,771.0	1.0	180.0
2021	102.2	17,739.0	48.7	8,452.0	11.8	2,039.0	179.8	31,064.0	1.2	208.0
2022	103.6	17,968.0	48.7	8,451.0	11.9	2,061.0	202.7	35,017.0	6.1	1,058.0
% Difference 2022–2021	1.3%	1.3%	0.0%	0.0%	1.1%	1.1%	12.7%	12.7%	408.1%	408.7%



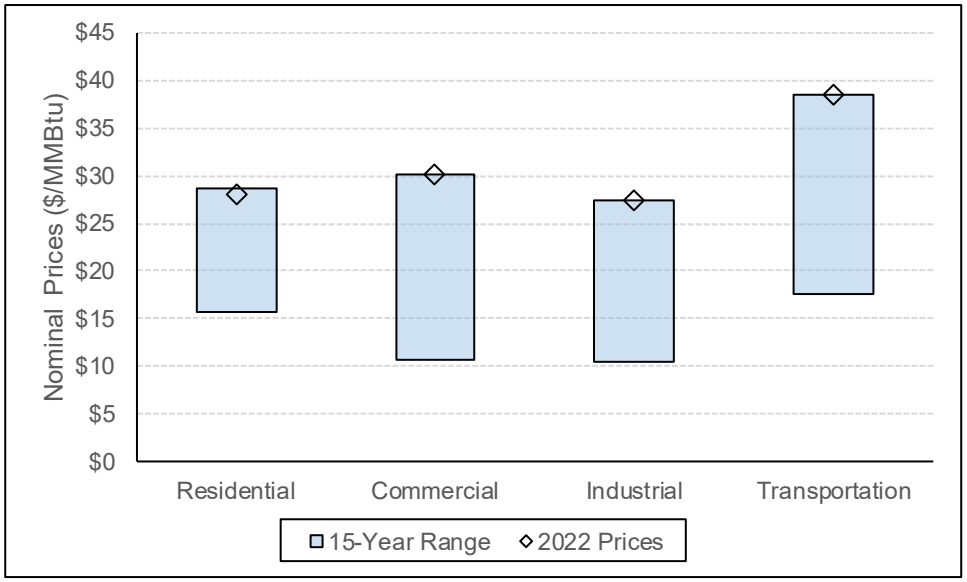
New York State Energy Profile—Distillate Fuel Oil

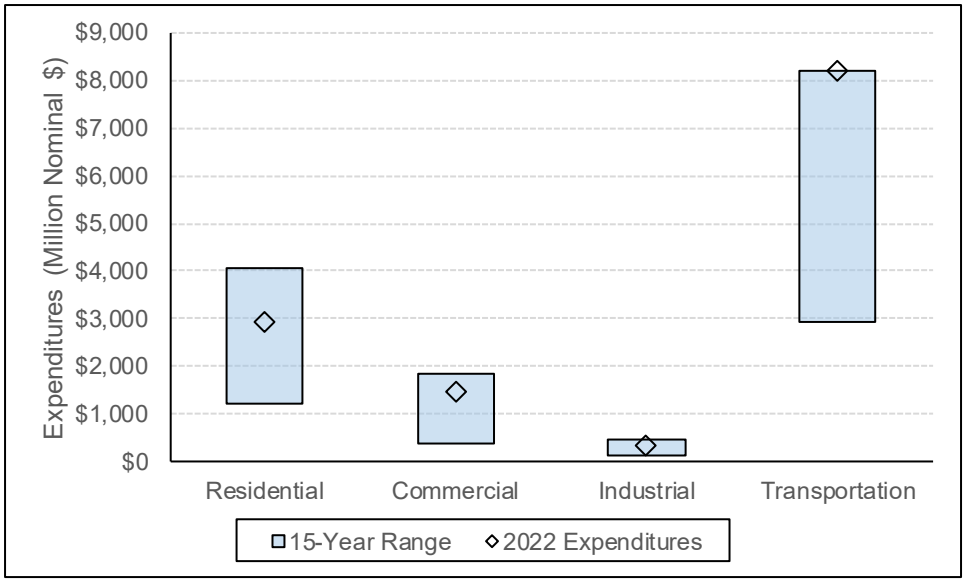
Distillate Fuel Oil 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008	$24.89	$23.58	$23.77	$28.28
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
% Difference 2022–2021	51.3%	77.5%	91.2%	56.0%

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

Year	Residential	Commercial	Industrial	Transportation
2008	$4,048.18	$1,832.76	$468.39	$4,492.65
2009	$2,269.78	$1,047.32	$243.28	$2,920.42
2010	$2,500.63	$1,074.28	$251.80	$3,640.73
2011	$2,750.43	$1,472.35	$382.65	$4,695.59
2012	$3,633.05	$1,279.91	$359.11	$4,686.03
2013	$2,966.01	$1,331.46	$317.14	$4,385.45
2014	$3,129.48	$1,060.05	$262.84	$4,633.32
2015	$2,348.52	$805.44	$176.10	$3,555.82
2016	$1,479.63	$534.52	$121.58	$3,172.71
2017	$1,540.45	$624.00	$161.24	$3,701.66
2018	$2,185.66	$798.29	$194.93	$4,699.55
2019	$2,034.24	$758.16	$214.93	$4,263.25
2020	$1,223.41	$393.11	$140.40	$3,404.02
2021	$1,900.77	$829.67	$169.14	$4,674.67
2022	$2,913.85	$1,472.81	$326.99	$8,198.50
% Difference 2022–2021	53.3%	77.5%	93.3%	75.4%

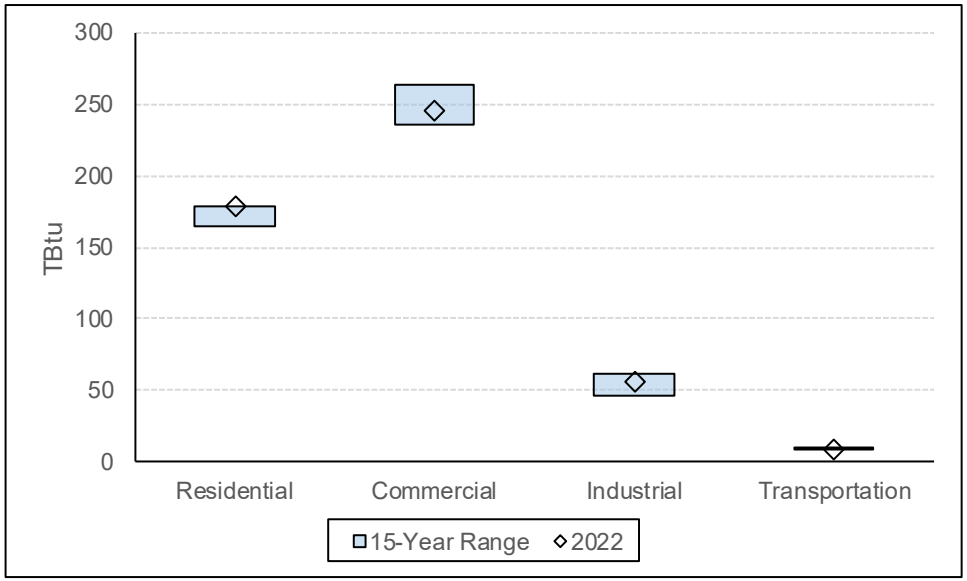




New York State Energy Profile—Electricity

Electricity 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation	
	TBtu	GWh	TBtu	GWh	TBtu	GWh	TBtu	GWh
2008	167.3	49,034.0	264.1	77,416.0	50.1	14,685.0	10.0	2,918.0
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
% Difference 2022–2021	0.1%	0.1%	3.3%	3.3%	-4.2%	-4.2%	5.9%	5.9%



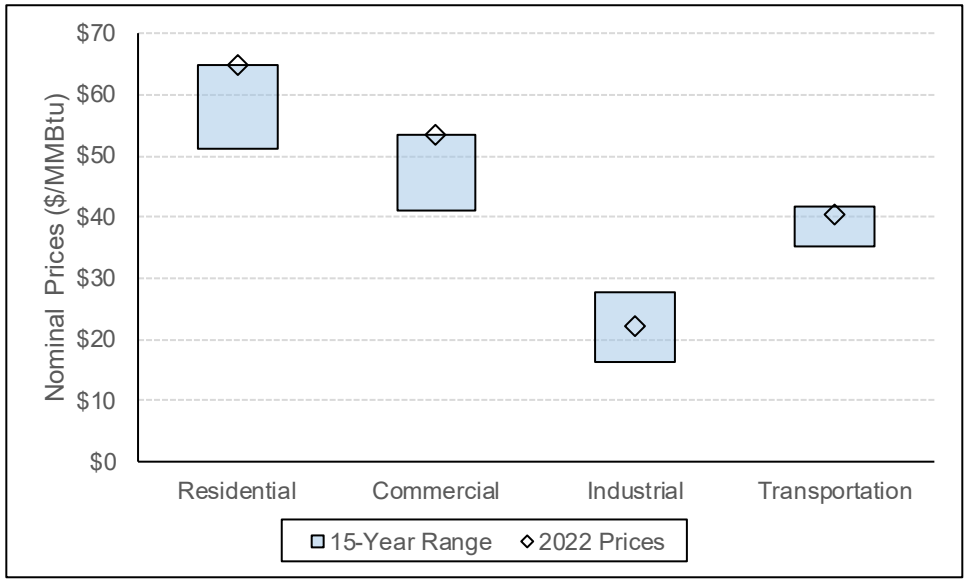
New York State Energy Profile—Electricity

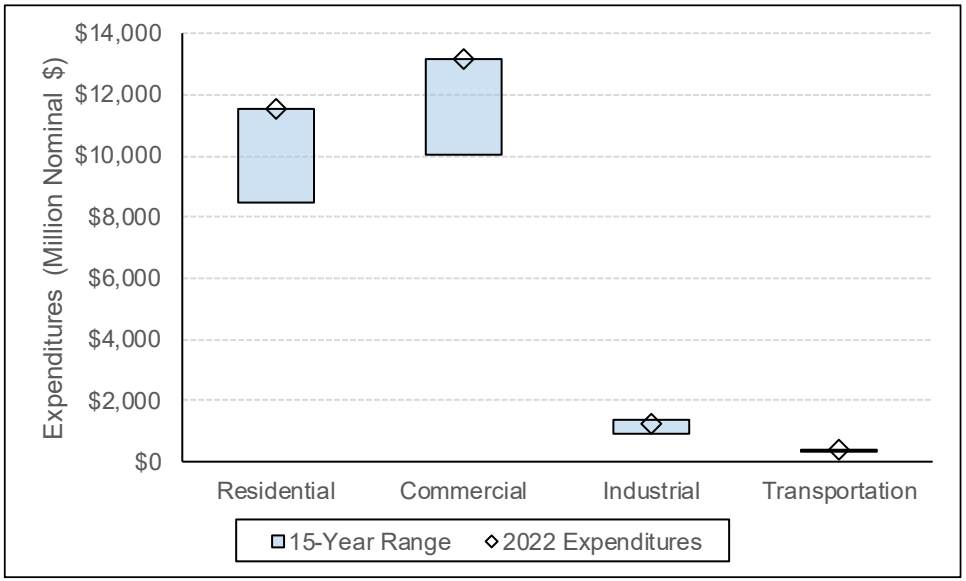
Electricity 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008	$53.66	$49.22	$27.53	$37.05
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
% Difference 2022–2021	13.3%	13.2%	19.0%	9.2%

Electricity 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2008	$8,977.53	$13,001.07	$1,379.42	$368.87
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
% Difference 2022–2021	13.5%	16.9%	14.0%	15.6%

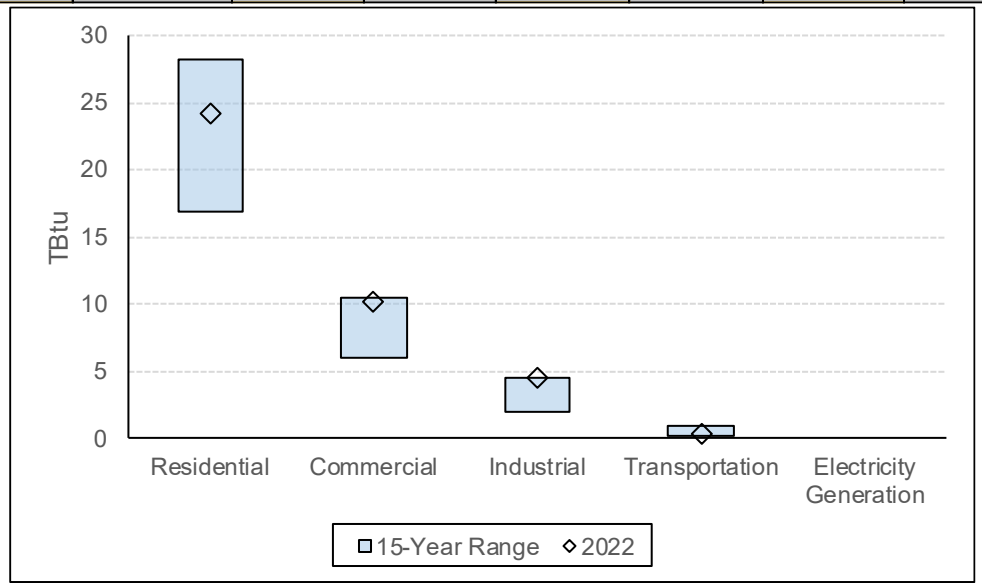




New York State Energy Profile—Propane (HGL)

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
2008	22.6	5,885.0	6.3	1,641.0	2.5	753.0	1.0	257.0		
2009	22.8	5,940.0	6.6	1,724.0	1.9	583.0	0.4	97.0		
2010	22.2	5,781.0	6.6	1,718.0	2.3	611.0	0.1	29.0		
2011	19.8	5,146.0	6.9	1,797.0	2.8	718.0	0.1	27.0		
2012	16.8	4,381.0	6.0	1,558.0	3.5	903.0	0.1	28.0		
2013	19.4	5,051.0	6.5	1,693.0	3.4	875.0	0.1	38.0		
2014	24.8	6,463.0	6.8	1,776.0	3.6	950.0	0.2	41.0		
2015	22.5	5,849.0	7.3	1,892.0	3.1	817.0	0.2	51.0		
2016	21.2	5,529.0	7.9	2,061.0	3.3	868.0	0.2	59.0		
2017	21.9	5,698.0	7.8	2,023.0	2.3	608.0	0.5	131.0		
2018	27.3	7,098.0	8.1	2,118.0	2.6	665.0	0.3	71.0		
2019	28.3	7,361.0	8.4	2,200.0	2.5	647.0	0.3	68.0		
2020	25.6	6,652.0	9.5	2,472.0	2.9	760.0	0.2	47.0		
2021	25.6	6,656.0	10.5	2,731.0	3.7	973.0	0.2	41.0		
2022	24.2	6,300.0	10.2	2,651.0	4.5	1,164.0	0.3	72.0		
% Difference 2022–2021	-5.4%	-5.3%	-2.9%	-2.9%	19.7%	19.6%	77.1%	75.6%	N/A	N/A



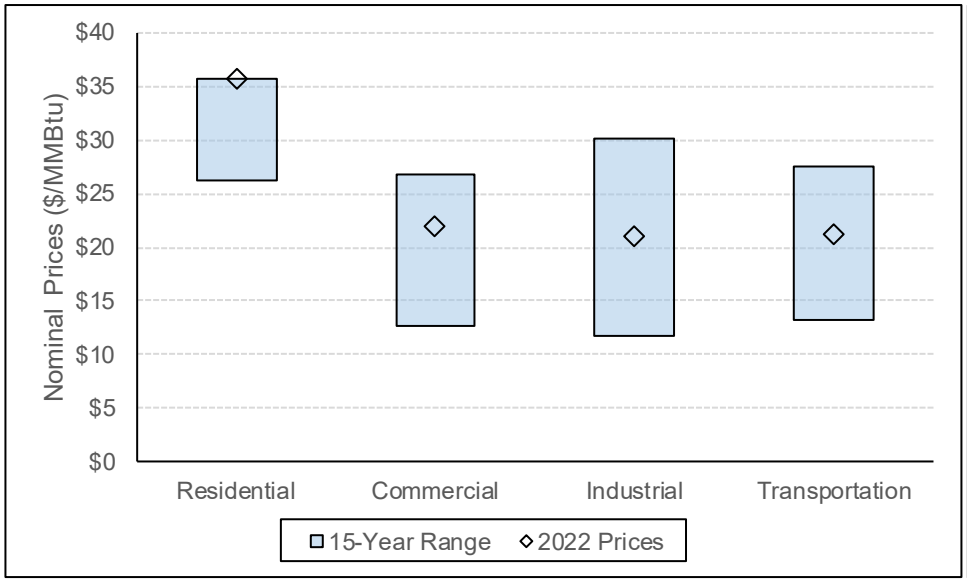
New York State Energy Profile—Propane (HGL)

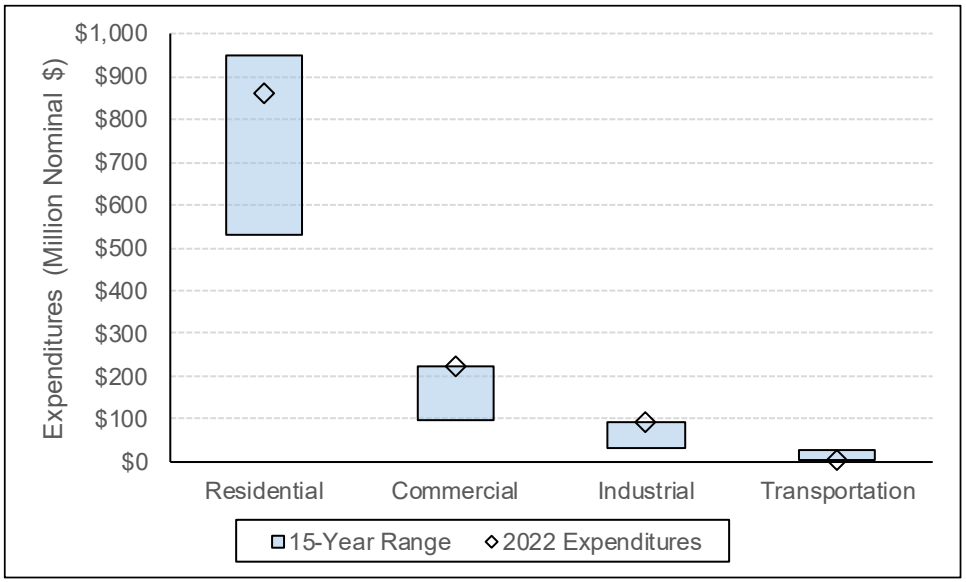
Propane (HGL) 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008	$31.28	$25.52	$30.16	$25.94
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
% Difference 2022–2021	12.4%	6.1%	6.1%	0.1%

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

Year	Residential	Commercial	Industrial	Transportation
2008	$707.08	$160.83	$76.52	$25.63
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
% Difference 2022–2021	6.4%	3.0%	27.1%	77.3%

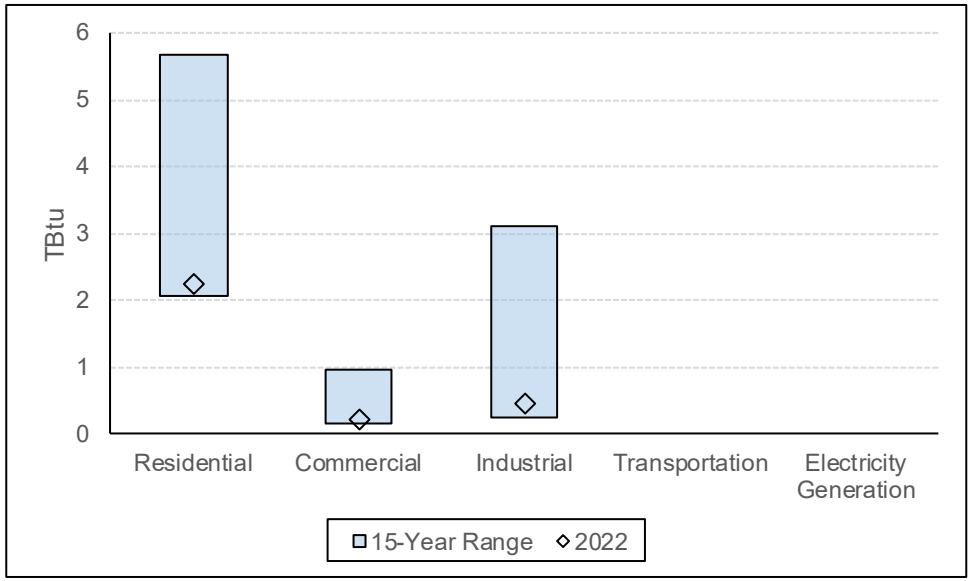




New York State Energy Profile—Kerosene

Kerosene 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl	TBtu	Mbbl
2008	3.7	661.0	0.7	128.0	0.2	41.0				
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				
% Difference 2022–2021	-10.2%	-10.0%	-10.4%	-9.5%	-25.1%	-25.0%	N/A	N/A	N/A	N/A



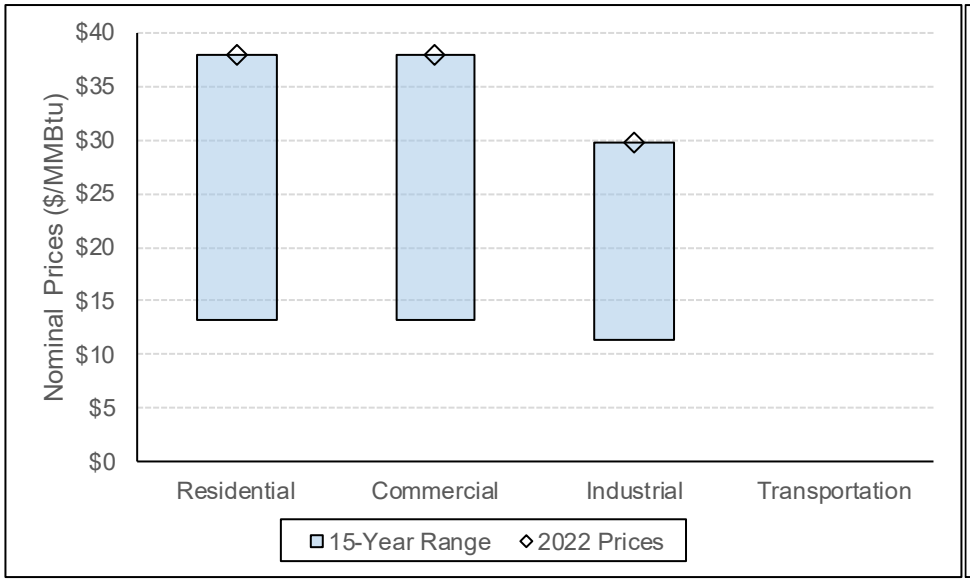
New York State Energy Profile—Kerosene

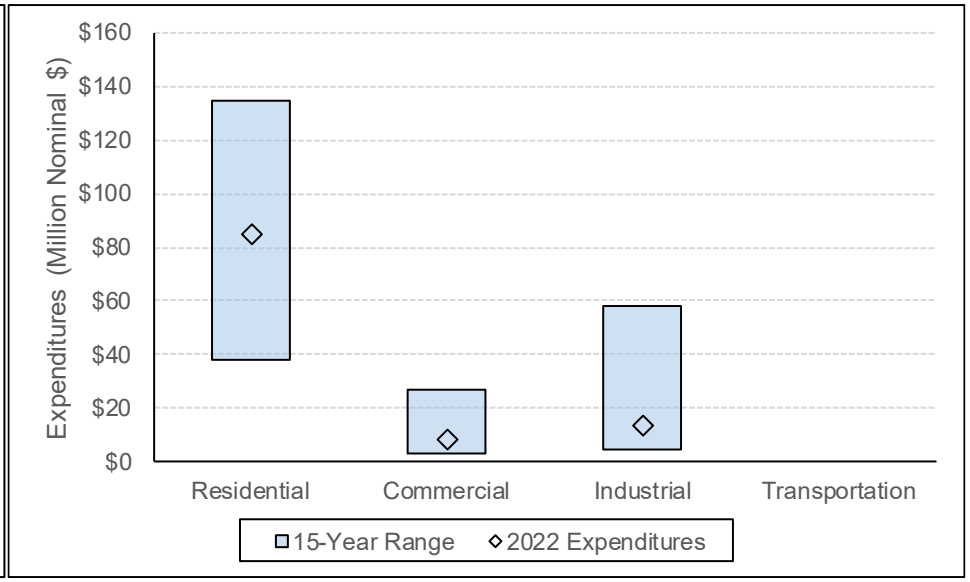
Kerosene 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008	$27.06	$27.06	$22.73	
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	
% Difference 2022–2021	65.4%	65.4%	78.9%	N/A

Kerosene 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2008	$101.34	$19.65	$5.23	
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	
% Difference 2022–2021	48.6%	48.2%	34.0%	N/A





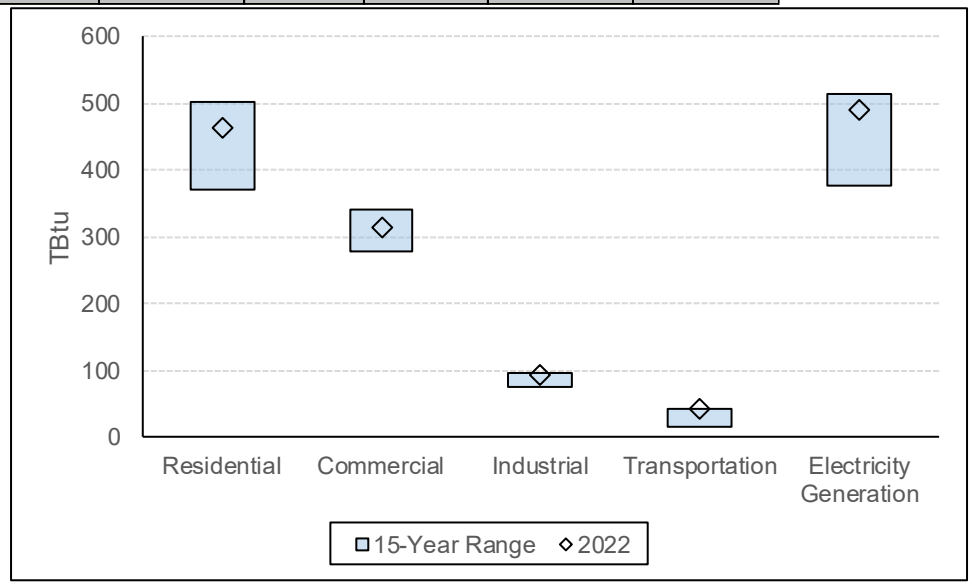
New York State Energy Profile—Natural Gas

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
2008	402.7 (402.7)	394.2 (394.1)	296.4 (296.4)	290.2 (290.1)	82.4	80.7	16.3	16.0	407.3 (407.3)	399.4 (398.5)
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	464.2 (463.8)	449.8 (449.5)	313.6 (313.4)	303.9 (303.7)	91.6	88.7	43.4	42.1	490.5 (490.1)	475.5 (474.9)
% Difference 2022–2021	1.0%	0.9%	2.0%	2.0%	-1.3%	-1.3%	14.7%	14.7%	6.3%	6.3%

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.



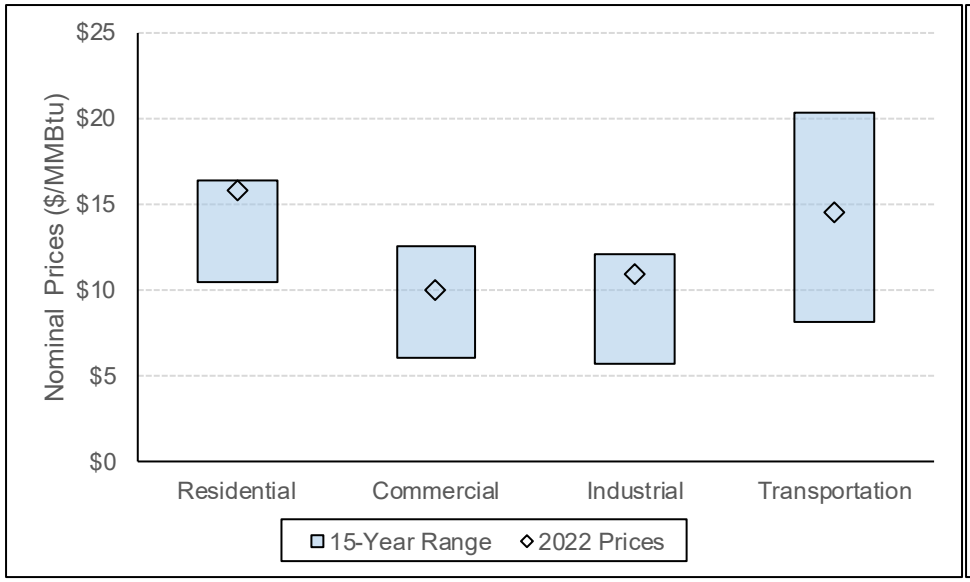
New York State Energy Profile—Natural Gas

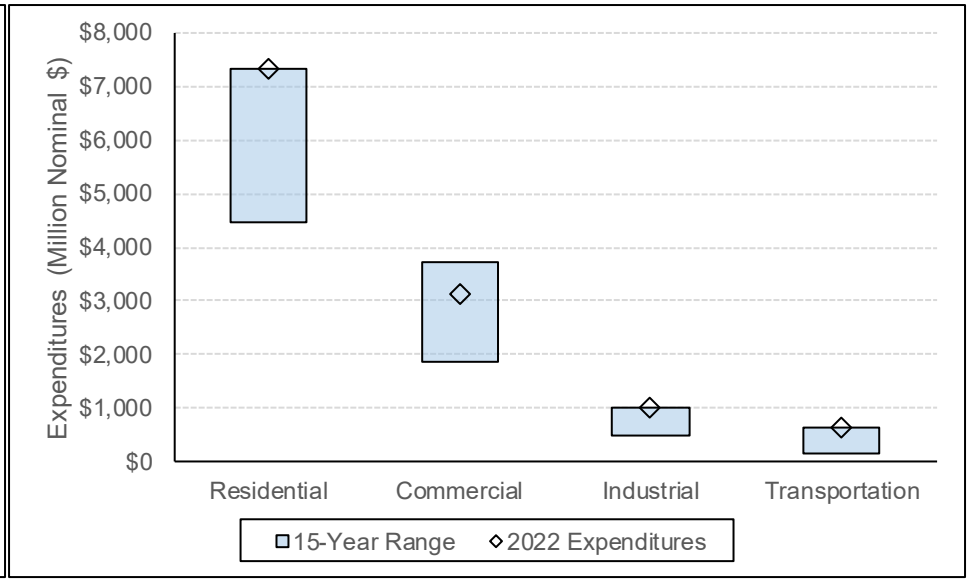
Natural Gas 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008	$16.42	$12.59	$12.04	$18.15
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	$19.90
2014	$12.13	$8.04	$7.87	$18.14
2015	$10.84	$6.64	$6.41	$16.06
2016	$10.51	$6.00	$5.74	$14.41
2017	$11.66	$6.65	$6.98	$11.74
2018	$11.98	$7.13	$7.58	$10.67
2019	$12.22	$6.98	$7.46	$10.07
2020	$12.38	$6.66	$6.77	$9.83
2021	$13.35	$7.66	$8.12	$11.96
2022	$15.83	$9.99	$10.95	$14.58
% Difference 2022–2021	18.6%	30.4%	34.9%	21.9%

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

Year	Residential	Commercial	Industrial	Transportation
2008	$6,612.89	$3,732.12	$992.10	$296.19
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	$414.58
2014	$5,745.02	$2,660.13	$687.86	$625.16
2015	$5,062.20	$2,134.17	$551.70	$582.05
2016	$4,472.67	$1,873.07	$480.09	$412.41
2017	$5,207.74	$2,130.73	$598.40	$314.02
2018	$6,009.34	$2,431.59	$717.09	$302.41
2019	$5,974.37	$2,325.69	$696.96	$320.19
2020	$5,593.73	$1,988.95	$605.71	$280.57
2021	$6,139.22	$2,354.37	$753.30	$452.88
2022	$7,349.01	$3,133.35	$1,002.48	$633.25
% Difference 2022–2021	19.7%	33.1%	33.1%	39.8%

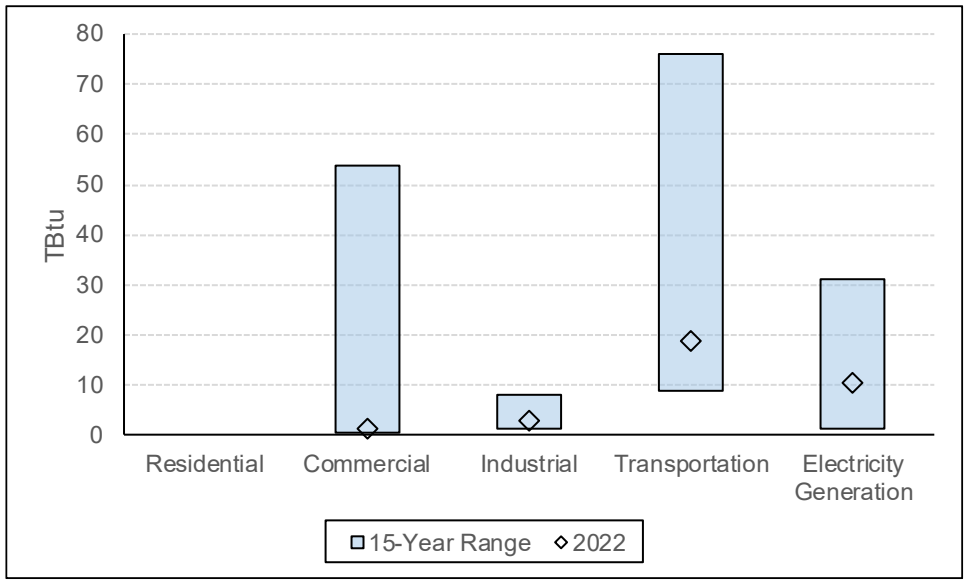




New York State Energy Profile—Residual Fuel Oil

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
2008			48.3	7,685.0	7.8	1,247.0	65.0	10,336.0	31.0	4,935.0
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
% Difference 2022–2021	N/A	N/A	2.4%	2.7%	2.5%	2.5%	2.5%	2.5%	93.3%	93.4%



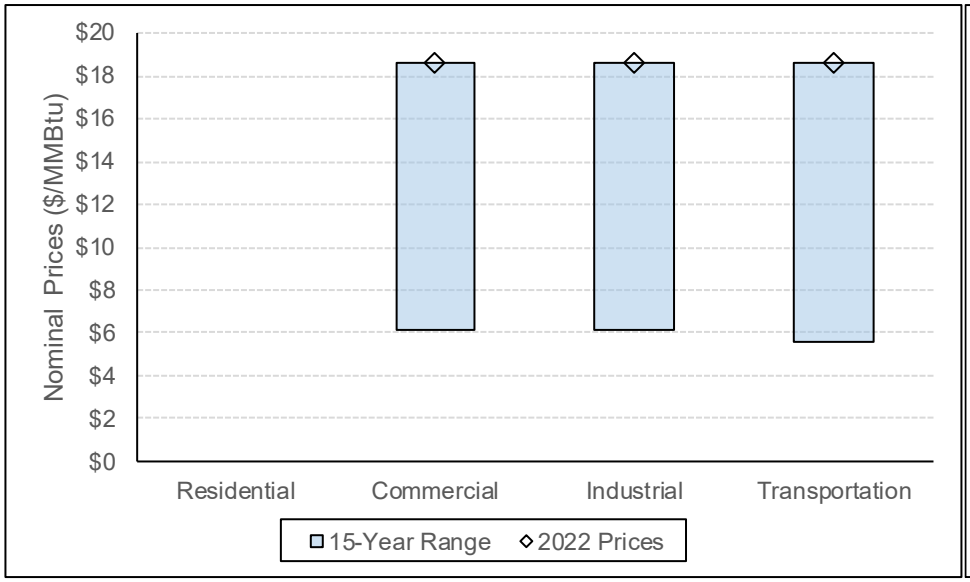
New York State Energy Profile—Residual Fuel Oil

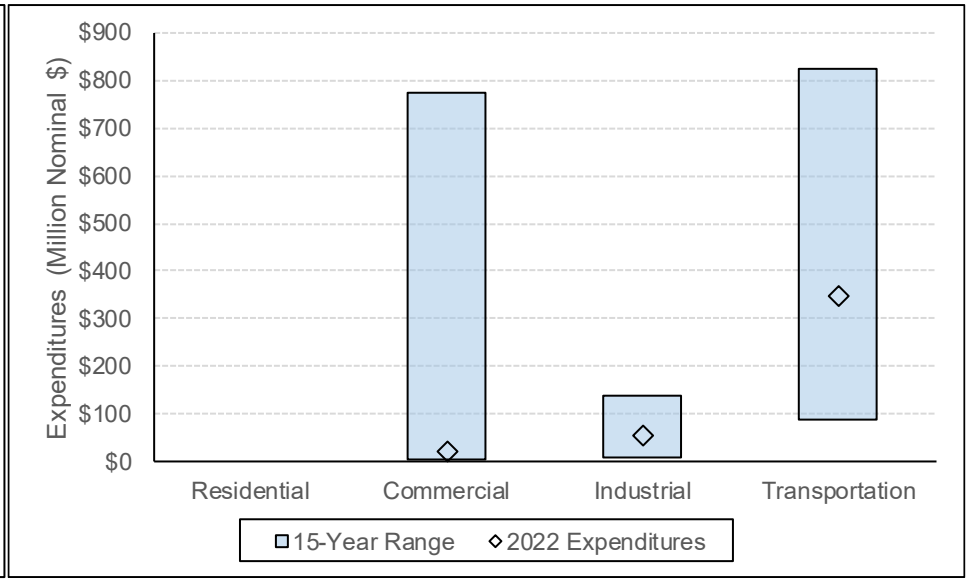
Residual Fuel Oil 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008		$13.27	$13.27	$12.08
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
% Difference 2022–2021	N/A	61.8%	61.8%	70.0%

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

Year	Residential	Commercial	Industrial	Transportation
2008		$641.18	$104.06	$785.01
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
% Difference 2022–2021	N/A	65.8%	65.8%	74.2%

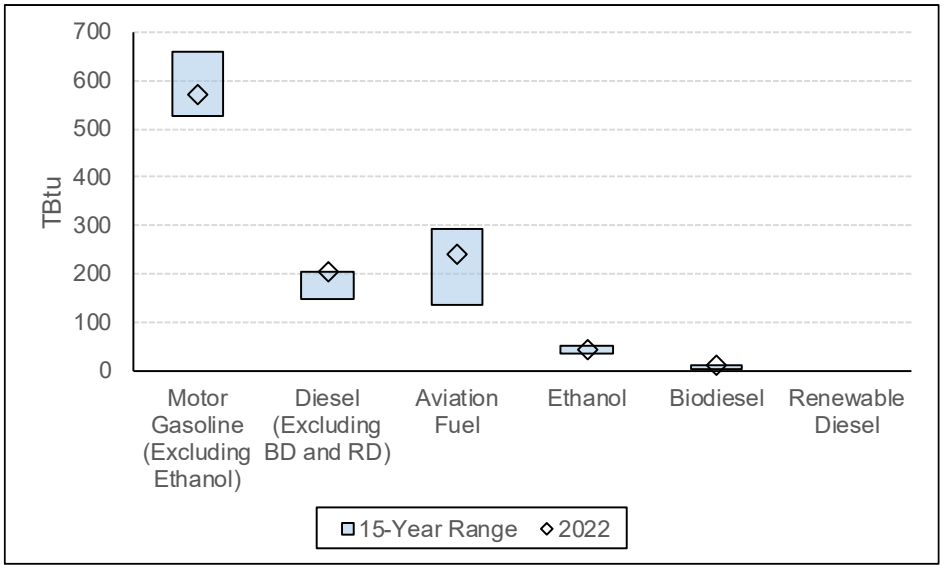




New York State Energy Profile—Transportation Fuels

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
2008	660.4	126,139.0	158.9	27,071.0	222.7	39,293.4	34.6	9,966.0	2.2	414.0		
2009	650.2	123,898.0	157.5	27,231.0	200.5	35,363.7	41.6	12,023.0	2.4	439.0		
2010	652.9	124,599.0	161.2	27,890.0	230.5	40,652.0	46.8	13,488.0	1.9	355.0		
2011	617.6	117,960.0	158.2	27,325.0	231.8	40,879.0	44.2	12,758.0	6.5	1,209.0		
2012	603.6	115,262.0	152.6	26,370.0	233.3	41,158.0	43.8	12,640.0	6.5	1,221.0		
2013	600.7	114,702.0	146.0	25,263.0	247.8	43,706.0	44.3	12,759.0	6.1	1,132.0		
2014	621.9	118,814.0	155.3	26,872.0	254.2	44,839.0	45.6	13,129.0	6.3	1,180.0		
2015	612.2	117,035.0	162.3	28,072.0	267.2	47,133.0	44.7	12,874.0	6.7	1,259.0		
2016	634.8	121,366.0	173.2	29,982.0	282.9	49,896.0	46.6	13,433.0	7.7	1,438.0		
2017	641.4	122,624.0	174.2	30,164.0	293.4	51,747.0	47.9	13,790.0	8.0	1,495.0		
2018	647.4	123,753.0	185.1	32,013.0	284.7	50,221.0	48.8	14,005.0	9.2	1,709.0	0.1	26.0
2019	637.9	121,935.0	171.5	29,656.0	288.1	50,817.0	48.5	13,937.0	9.9	1,845.0		
2020	528.9	101,066.0	160.4	27,771.0	134.6	23,743.0	40.4	11,610.0	8.1	1,506.0		
2021	582.2	111,283.0	179.8	31,064.0	174.7	30,825.0	44.9	12,897.0	9.8	1,824.0		
2022	571.6	109,269.0	202.7	35,017.0	240.4	42,406.0	44.2	12,703.0	10.5	1,950.0		
% Difference 2022–2021	-1.8%	-1.8%	12.7%	12.7%	37.6%	37.6%	-1.4%	-1.5%	6.9%	6.9%	N/A	N/A



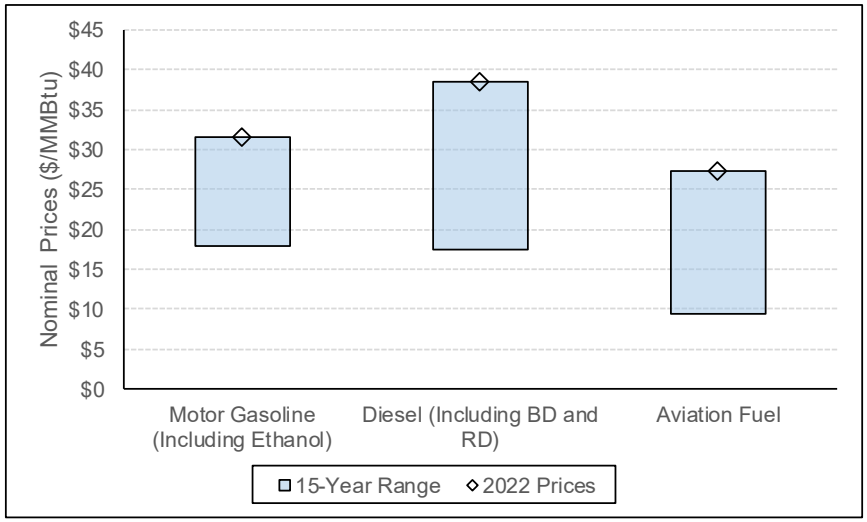
New York State Energy Profile—Transportation Fuels

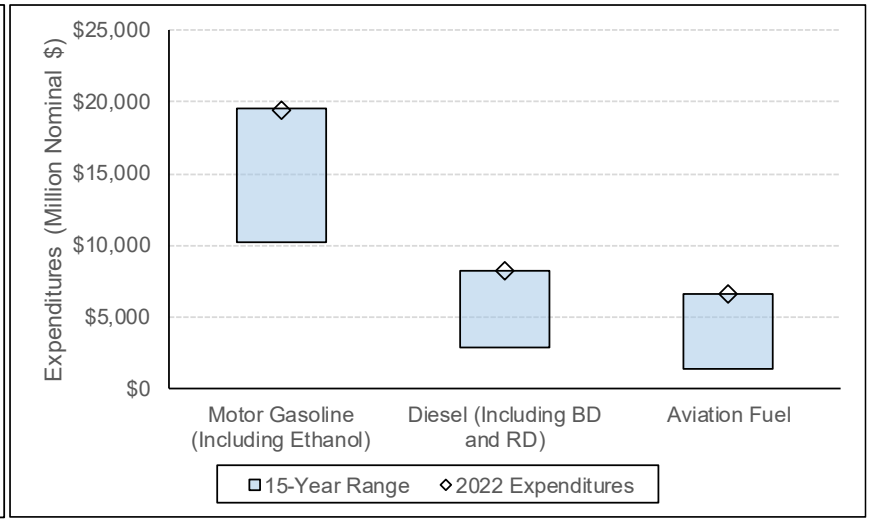
Transportation Fuels 15-Year Prices Summary (Nominal $/MMBtu)

Year	Motor Gasoline	Diesel	Aviation Fuel
2008	$26.79	$28.28	$23.13
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
% Difference 2022–2021	32.2%	56.0%	86.1%

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

Year	Motor Gasoline	Diesel	Aviation Fuel
2008	$18,617.79	$4,492.65	$5,150.90
2009	$13,428.56	$2,920.42	$2,534.04
2010	$16,078.83	$3,640.73	$3,786.64
2011	$19,298.88	$4,695.59	$5,277.06
2012	$19,552.63	$4,686.03	$5,404.22
2013	$18,980.94	$4,385.45	$5,488.55
2014	$18,936.95	$4,633.32	$5,239.00
2015	$13,447.75	$3,555.82	$3,203.69
2016	$12,353.93	$3,172.71	$2,684.37
2017	$13,868.68	$3,701.66	$3,581.93
2018	$15,477.13	$4,699.55	$4,555.23
2019	$14,394.40	$4,263.25	$4,254.93
2020	$10,166.57	$3,404.02	$1,351.15
2021	$14,969.12	$4,674.67	$2,568.53
2022	$19,435.85	$8,198.50	$6,574.69
% Difference 2022–2021	29.8%	75.4%	156.0%

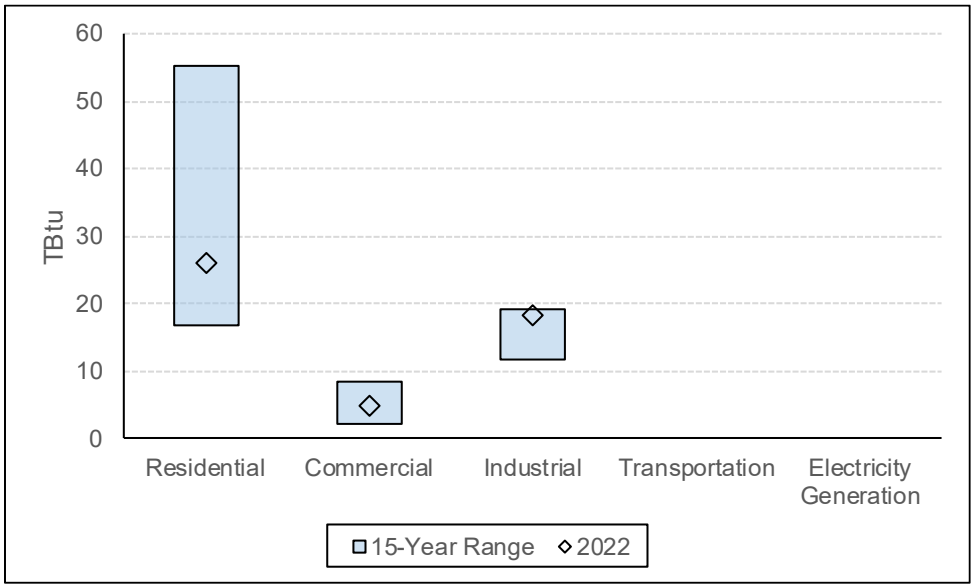




New York State Energy Profile—Wood

Wood 15-Year Consumption Summary by Sector

Year	Residential		Commercial		Industrial		Transportation		Electricity Generation	
	TBtu	Mcords	TBtu	Mcords	TBtu	Mcords	TBtu	Mcords	TBtu	Mcords
2008	55.2	2,762.4	8.4	420.2	12.3	613.5				
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	2.7	137.4	18.6	929.6				
2015	36.8	1,842.4	5.4	269.8	18.5	925.7				
2016	29.5	1,474.0	5.2	261.1	18.7	936.2				
2017	28.5	1,425.0	5.2	261.2	18.5	925.3				
2018	34.7	1,734.6	5.2	260.3	18.3	916.8				
2019	35.4	1,769.5	5.1	255.5	18.6	932.2				
2020	22.0	1,099.6	5.0	250.9	18.0	898.3				
2021	23.4	1,169.2	5.4	267.6	18.1	903.6				
2022	26.1	1,305.9	4.9	243.4	18.3	913.8				
% Difference 2022–2021	11.7%	11.7%	-9.0%	-9.0%	1.1%	1.1%	N/A	N/A	N/A	N/A



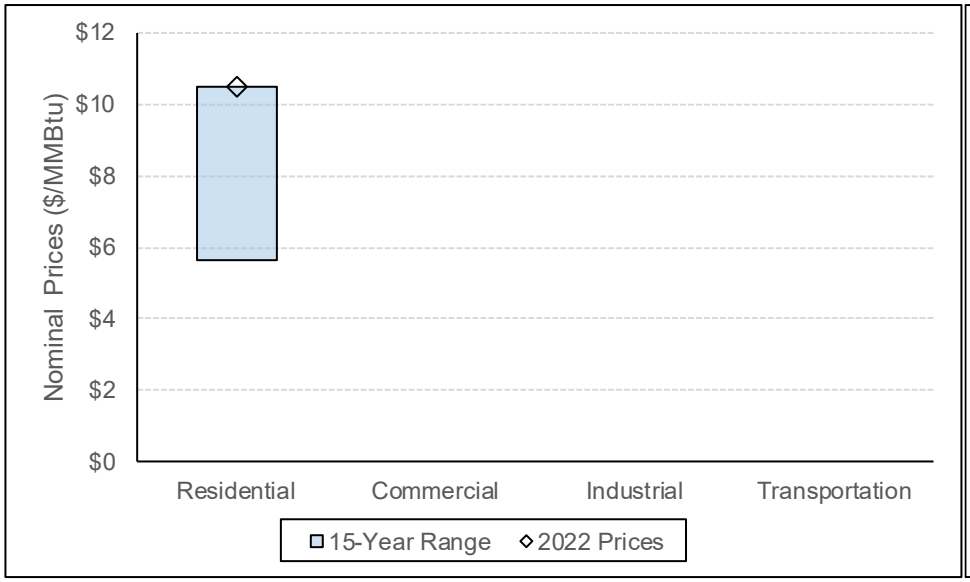
New York State Energy Profile—Wood

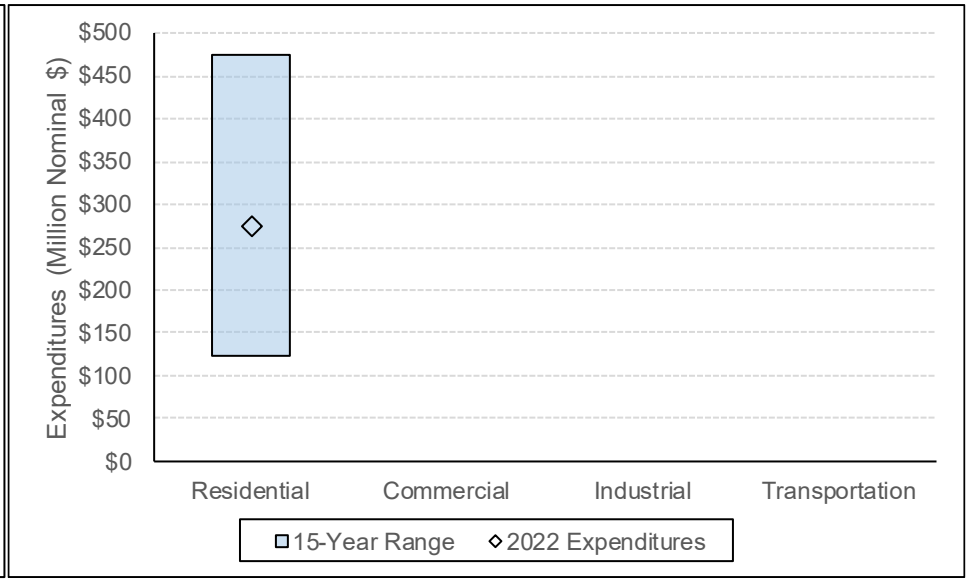
Wood 15-Year Prices Summary (Nominal $/MMBtu)

Year	Residential	Commercial	Industrial	Transportation
2008	$8.59			
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	$10.48			
% Difference 2022–2021	54.8%	N/A	N/A	N/A

Wood 15-Year Expenditures Summary (Million Nominal $)

Year	Residential	Commercial	Industrial	Transportation
2008	$474.57			
2009	$124.76			
2010	$157.88			
2011	$184.11			
2012	$171.33			
2013	$218.96			
2014	$216.04			
2015	$247.24			
2016	$168.92			
2017	$182.68			
2018	$245.97			
2019	$241.35			
2020	$124.03			
2021	$158.30			
2022	$273.71			
% Difference 2022–2021	72.9%	N/A	N/A	N/A





Appendix B References

New York State Energy Research and Development Authority (NYSERDA). 2024. *New York State Generation Attribute Tracking System (NYGATS).* Accessed August 28. https://www.nyserda.ny.gov/All-Programs/NYGATS

New York State Independent System Operator (NYISO). 2023. *Load & Capacity Data Report: Annual NYS Generation Summary and Forecast.* NYISO. https://www.nyiso.com/library#reports

U.S. Energy Information Administration (EIA). 2023a. "Electricity Historical State Data." *Annual Electric Power Industry Report,* October 5. Accessed August 1, 2024. https://www.eia.gov/electricity/data/state/xls/861/HS861%202010-.xlsx

U.S. Energy Information Administration (EIA). 2024a. "State Energy Data System." June 28. Accessed July 2024. https://www.eia.gov/state/seds/

U.S. Energy Information Administration (EIA). 2024m. "Natural Gas Consumption by End Use." October 31. Accessed November 2024. https://www.eia.gov/dnav/ng/ng_cons_sum_a_EPG0_vgt_mmcf_a.htm

U.S. Energy Information Administration (EIA). 2024n. "Natural Gas Gross Withdrawals and Production." October 31. Accessed November 2024. https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_FGW_mmcf_a.htm

U.S. Energy Information Administration (EIA). 2024o. "Natural Gas Prices." October 31. Accessed November 2024. https://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SNY_a.htm

U.S. Energy Information Administration (EIA). 2024p. "Refiner Acquisition Cost of Crude Oil." November 1. Accessed November 2024. https://www.eia.gov/dnav/pet/pet_pri_rac2_dcu_r10_a.htm

U.S. Energy Information Administration (EIA). 2024q. "East Coast (PADD1) Crude Oil Composite Acquisition Cost by Refiners." November 1. Accessed November 2024. https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=R0010____3&f=A

U.S. Energy Information Administration (EIA). 2024r. "New York Regular Conventional Retail Gasoline Prices." November 18. Accessed November 2024. https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMM_EPMRU_PTE_SNY_DPG&f=A

U.S. Energy Information Administration (EIA). 2024s. "New York Harbor Ultra-Low Sulfur No 2 Diesel Spot Price." November 20. Accessed November 2024. https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EER_EPD2DXL0_PF4_Y35NY_DPG&f=A

U.S. Energy Information Administration (EIA). 2024t. "New York Harbor Conventional Gasoline Regular Spot Price FOB." November 20. Accessed November 2024. https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=eer_epmru_pf4_y35ny_dpg&f=a

Appendix C. New York State Energy Indicators

Table C-1. New York State Energy Indicators Data

Data Type (Units)	Value	Source
Population (count of people)	19,677,151	U.S. Census Bureau (https://www.census.gov/)
Housing Units (count of housing units)	8,585,784	U.S. Census Bureau (https://www.census.gov/)
Licensed Drivers (count of NYS licensed drivers)	235,086,153	U.S. Department of Transportation Federal Highway Administration (https://highways.dot.gov/)
Vehicle Registrations (count of registered vehicles)	283,400,986	U.S. Department of Transportation Federal Highway Administration (https://highways.dot.gov/)
Vehicle Miles Traveled (million miles)	3,132,411	U.S. Department of Transportation Federal Highway Administration (https://highways.dot.gov/)
2022 GDP (billions of 2024 dollars)	$25,744.1	U.S. Bureau of Economic Analysis (https://www.bea.gov/)
2022 NYS GDP (billions of 2024 dollars)	$2,048.4	U.S. Bureau of Economic Analysis (https://www.bea.gov/)

Appendix C References

U.S. Energy Information Administration (EIA). 2024a. "State Energy Data System." June 28. Accessed July 2024. https://www.eia.gov/state/seds/

U.S. Census Bureau. 2024. American Community Survey (ACS). ACS 1-Year Supplemental Estimates for New York: K200101 and K202504. Accessed August 2024. https://www.census.gov/programs-surveys/acs

U.S. Department of Transportation. 2024. Policy and Governmental Affairs Office of Highway Policy Information. Highway Statistics 2022. Accessed August 2024. https://www.fhwa.dot.gov/policyinformation/statistics/2022/

U.S. Bureau of Economic Analysis. 2024. Gross Domestic Product by State and Personal Income by State, 2nd Quarter 2024. Tables only (Excel). Accessed October 2024. https://www.bea.gov/data/gdp/gdp-state

Appendix D. New York State Energy Profile Data Annex

Appendix D Contents

Tab Name	*Description*
Consumption—TBtu	NYS energy consumption data in TBtu by sector.
Consumption-PhysicalUnits	NYS energy consumption data in fuel-specific physical units by sector.
Nominal Prices	NYS energy and fuels prices in nominal dollars. Data provided in both TBtu and fuel-specific physical units by sector.
Real 2022 Prices	NYS energy and fuels prices in real 2022 dollars. Data provided in both Tbtu and fuel-specific physical units by sector.
Nominal Energy Expenditures	NYS expenditures in million nominal dollars by sector.
Real 2022 Energy Expenditures	NYS expenditures in million real 2022 dollars by sector.
NYS RECS Summary	Summary of EIA NYS RECS data.
NYS Gasoline By County	Estimated gasoline sales in NYS by county 2008–2022.

Click here to access the full worksheet.

Appendix D. References

New York State Department of Tax and Finance (DTF). 2024. Motor Fuel Distribution Data. September.

New York State Department of Tax and Finance (DTF). 2024. Sales and Tax Rate Publications. Publications 718 and 718a. Accessed September 2024. Available online: https://www.tax.ny.gov/pubs_and_bulls/tg_bulletins/st/sales_tax_rate_publications.htm

U.S. Energy Information Administration (EIA). 2024a. "State Energy Data System." June 28. Accessed July 2024. https://www.eia.gov/state/seds/

U.S. Energy Information Administration (EIA). 2024b. "RECS: 2020 RECS Survey Data, State Data." Final data release date June 13, 2024. Accessed August 2024. https://www.eia.gov/consumption/residential/data/2020/index.php?view=state#ce

U.S. Energy Information Administration (EIA). 2024c. "RECS: Highlights for Fuels Used in U.S. Homes by State, 2020." March. Accessed August 2024. https://www.eia.gov/consumption/residential/data/2020/state/xls/State%20Fuels%20Used.xlsx

U.S. Energy Information Administration (EIA). 2024d. "RECS: Highlights for Space Heating Fuel in U.S. Homes by State, 2020." March. Accessed August 2024. https://www.eia.gov/consumption/residential/data/2020/state/xls/State%20Space%20Heating%20Fuels.xlsx

U.S. Energy Information Administration (EIA). 2024e. "RECS: Highlights for Water Heating in U.S. Homes by State, 2020." March. Accessed August 2024. https://www.eia.gov/consumption/residential/data/2020/state/xls/State%20Water%20Heating.xlsx

U.S. Energy Information Administration (EIA). 2024f. "RECS: Highlights for Air Conditioning in U.S. Homes by State, 2020." March. Accessed August 2024. https://www.eia.gov/consumption/residential/data/2020/state/xls/State%20Air%20Conditioning.xlsx

U.S. Energy Information Administration (EIA). 2024g. "RECS: Table CE2.1.ST Annual Household Site Fuel Consumption in U.S. Homes by State—Totals and Averages, 2020." June. Accessed August 2024. (https://www.eia.gov/consumption/residential/data/2020/state/xls/ce2.1.st.xlsx).

U.S. Energy Information Administration (EIA). 2024h. "RECS: Table CE2.6.ST Annual Household Fuel Expenditures in U.S. Homes by State—Totals and Averages, 2020." June. Accessed August 2024. (https://www.eia.gov/consumption/residential/data/2020/state/xls/ce2.6.st.xlsx).

U.S. Energy Information Administration (EIA). 2024i. “RECS: Table CE5.3.ST Detailed Household Site Electricity End-Use Consumption in the U.S. by State—Averages, 2020.” June. Accessed August 2024. (https://www.eia.gov/consumption/residential/data/2020/state/xls/ce5.3.st.xlsx).

U.S. Energy Information Administration (EIA). 2024j. “RECS: Table CE5.4.ST Detailed Household Natural Gas, Propane, and Fuel Oil or Kerosene End-Use Consumption in the U.S. by State—Averages, 2020.” June. Accessed August 2024. (https://www.eia.gov/consumption/residential/data/2020/state/xls/ce5.4.st.xlsx).

U.S. Energy Information Administration (EIA). 2024k. “RECS: Table CE5.7.ST Detailed Electricity End Uses by State—Expenditures—Averages, 2020.” June. Accessed August 2024. (https://www.eia.gov/consumption/residential/data/2020/state/xls/ce5.7.st.xlsx).

U.S. Energy Information Administration (EIA). 2024l. “RECS: Table CE5.8.ST Detailed Household Natural Gas, Propane, and Fuel Oil or Kerosene End-Use Expenditures in the U.S. by State—Averages, 2020.” June. Accessed August 2024. (https://www.eia.gov/consumption/residential/data/2020/state/xls/ce5.8.st.xlsx).

Appendix E. Greenhouse Gas Emissions Resources

Under New York State's Climate Leadership and Community Protection Act (Climate Act), New York State's Department of Environmental Conservation (DEC) published an annual inventory of greenhouse gases, the Statewide Greenhouse Gas Emissions Report with additional supporting data available at OPENNY. Per Climate Act provisions, the report is required to adopt a 20-year global warming potential and include all emissions from fossil fuels and electricity consumed within the State, including emissions from fuel production and transportation beyond the State boundaries. DEC published the first annual report in December 2021, in collaboration with NYSERDA, as well as the first annual update in December 2022.

NYSERDA conducted studies that provided the underlying analysis for the energy sector greenhouse gas (GHG) emissions inventory, including direct emissions and emissions from imported fossil fuels and electricity, methane emissions from oil and gas systems, as well as hydrofluorocarbon (HFC) emissions, which together make up over 80% of statewide GHG emissions. More information about NYSERDA's Greenhouse Gas Emissions Studies can be found on NYSERDA's website. NYSERDA updates these studies over time to make methodological improvements and to incorporate new data when available.

Appendix E References

New York State Department of Environmental Conservation. 2024. Statewide Greenhouse Gas Emissions Report. Accessed August 2024. https://dec.ny.gov/environmental-protection/climate-change/greenhouse-gas-emissions-report

NYSERDA. 2024. Greenhouse Gas Emissions Studies. Accessed August 2024. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Greenhouse-Gas-Emissions

Appendix F. New York State Energy Research Supplemental Research

Table F-1. New York State Research and Development Authority Resources and Publications

Resource	Description	Website
Patterns and Trends Report and Online Dashboard	Provides online visuals and access to electronic datasets that track energy pattern and trends in New York State.	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 New York State, 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

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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