

1 Introduction

1.1 *Patterns and Trends* Background

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

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

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

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

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

As New York State prepares to release its State Energy Plan¹ (NYS Energy Planning Board 2025), the data provided in this annual *Patterns and Trends* report supports energy tracking and planning associated with new and existing fuels.

¹ New York State Energy Plan website: <https://energyplan.ny.gov/>

1.2 New York State Energy Overview

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

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

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

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

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

- Residential
- Commercial
- Industrial
- Transportation
- Electric generation

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

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