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.