Our Energy System Today

Energy Sources and End Users

New York State Energy Plan

New York State prioritizes reliable and safe operation of its electricity, natural gas, and petroleum fuels systems to deliver energy when and where New Yorkers need it.

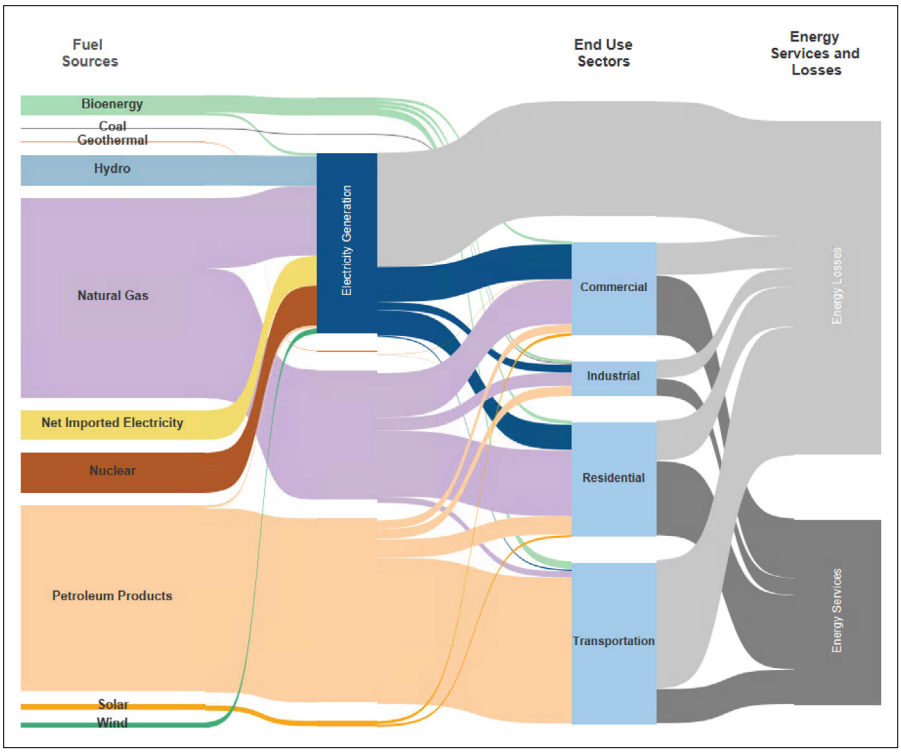
New York's energy supply and delivery systems are critical infrastructure. The State prioritizes reliable energy systems and cross-sector energy security and emergency preparedness.

Energy Flows

Figure 1 shows how the primary energy sources, which comprise New York State's complex energy system, flow to end users, as of 2022.

- Roughly three-quarters of primary energy use comes from fossil fuels, mainly natural gas and petroleum.
- The electric power sector is the state's largest user of primary energy (consuming 35%), followed by the end use sectors of transportation (31%), residential and commercial buildings (29%), and industrial (5%).
- The majority (64%) of primary energy used is lost in conversion from the primary energy source to a useful form such as space heat or powering an appliance. Ways to reduce these energy losses include transitioning away from combustion (where losses are particularly high), reducing losses in transmission and distribution, reusing waste heat, and improving energy efficiency.

Figure 1. 2022 New York State Energy Flow – Estimated Primary Energy Consumption



Electricity Generation

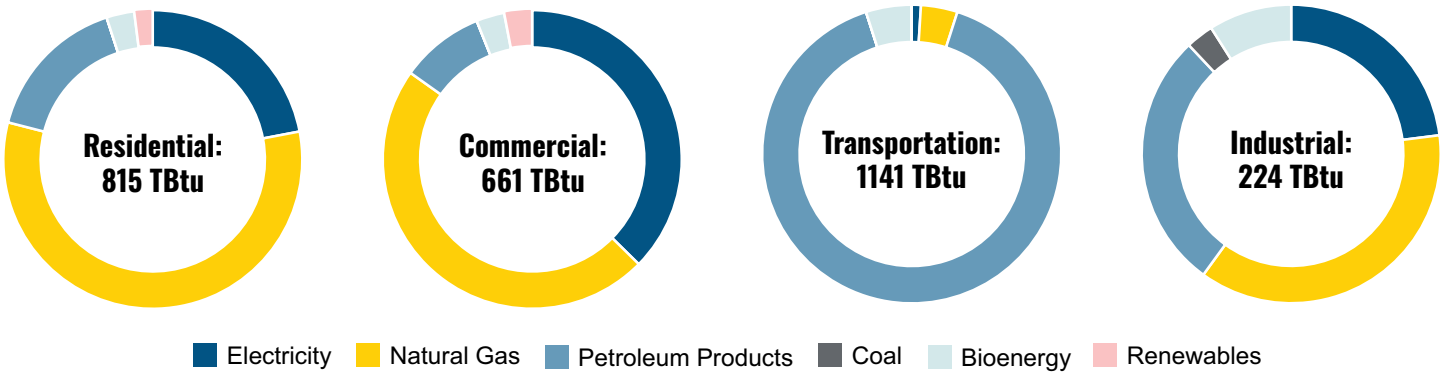
Roughly half of New York's in-state electricity generation comes from zero-emission sources, with 27% from renewable sources (hydroelectric, solar, and wind) and 22% from nuclear generation. Combustion generation (fueled by natural gas, oil, biofuels, and solid waste) produced 51% of in-state bulk electricity, as of 2023. Coal is no longer used for electricity generation in New York.

Final Energy Use

Energy consumption also is measured based on the final (or end-use) energy that consumers buy and receive, such as electricity used in their home or business; heating fuel; or gasoline at the pump. As shown in Figure 2, New York's:

- Residential and commercial buildings use a significant amount of both natural gas and electricity for heat and power, as well as heating oil (a petroleum product).
- Transportation sector relies mainly on petroleum (motor gasoline, aviation fuel, and diesel).
- Industrial sector draws on diverse energy sources to meet process demands, including natural gas, electricity, petroleum products, biomass, and a small amount of coal.

Figure 2. 2022 New York State Final Energy Consumption by Sector and Fuel



Energy Expenditures

Average New York State energy prices reached high levels during 2022 due to global dynamics and inflation as the economy recovered from the COVID-19 pandemic, combined with regional supply constraints.

With elevated energy prices, elevated expenditures follow.

- For most fuel types, 2022 represented the highest energy expenditures in 15 years.
- New York's total energy expenditure reached nearly $80 billion in 2022, over one-third of which was for out-of-state expenditures ($30 billion).
- Energy prices for many fuel types have declined since peaking in 2022, though statewide expenditure data is forthcoming for more recent years.

See the Patterns and Trends Energy Consumption and Pricing Dashboard for the most current compilation of statewide energy data.

The Draft State Energy Plan is available for public review.