

With the lowest per capita greenhouse gas (GHG) emissions of any state,¹ New York State is a national leader in efforts to lower GHG emissions—a critical step to protect our communities and economy from the damaging effects of climate change. To understand the historical GHG emissions data in New York State, NYSERDA has published the *New York State Greenhouse Gas Inventory: 1990-2016* report.

What are greenhouse gases?

Greenhouse gases are gases in the atmosphere that trap heat and lead to climate change.

The report explores six GHGs—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

In the Northeastern United States, mean temperature, precipitation, and sea level have increased, and the damage from severe storms like Sandy and Irene will continue to increase.

The changing climate affects human health, society, and the economy both directly, as a result of changes in temperature, precipitation, and severe storm incidents, and indirectly, through disruptive effects on ecosystems, coastal infrastructure and communities, agriculture, fisheries, water resources, vector-borne disease, and other natural resources.

How do we contribute?

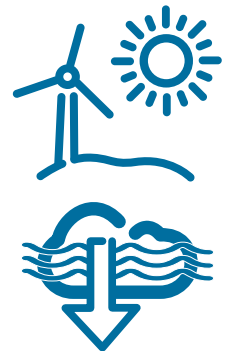
Carbon dioxide is the largest share of GHG from human activity, resulting from the burning of fossil fuels for electricity, heat, and transportation, among other energy needs. Other GHG emissions result from waste management, agriculture, and industrial activity.

On the path to the State’s goal of 40% reduction by 2030

Emission reductions led by electricity sector

▶ **51%** reduction in GHG emissions from electricity generation since 1990

▶ **13%** reduction in total New York State GHG emissions since 1990, compared to a 2% national increase



On the path to achieving the Paris Agreement reduction of 26%–28% by 2025

▶ **21%** reduction in total New York State GHG emissions since 2005

▶ **NY State has the most carbon-efficient economy in the nation**

GHG emissions are well below half the national level per unit of economic output¹

OVERVIEW OF THE STATE’S GHG EMISSIONS IN 2016: TOTAL EMISSIONS WERE 206 MMtCO₂e

ENERGY-RELATED EMISSION SOURCES²

173 Million Metric Tons of Carbon Dioxide Equivalent (MMtCO₂e)

36%
Transportation

30%
On-site fuel combustion from buildings (residential, commercial, and industrial)

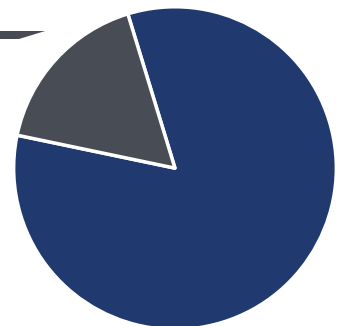
15%
Electricity generation (including net imports)

3%
Other³

NON-ENERGY EMISSION SOURCES

33 MMtCO₂e

Includes non-energy related sources such as substitutes for ozone-depleting substances,⁴ landfills, and agriculture



¹ Based on EIA’s state-level estimates of energy-related GHG emissions: www.eia.gov/environment/emissions/state/analysis/.

² Combined buildings-related emissions, from onsite fuel combustion and electric generation, contributes 93 MMtCO₂e to New York’s emissions profile. This is approximately 45% of statewide GHG emissions.

³ “Other” energy-related emissions include fugitive emissions from fossil fuel infrastructure and incineration of municipal waste.

⁴ Hydrofluorocarbon (HFC) emissions result from the consumption of substitutes for ozone-depleting substance (ODS), largely as refrigerants. The most notable HFC substitution is for Chlorofluorocarbons (CFC), which are subject to national and international ozone layer protection policies.