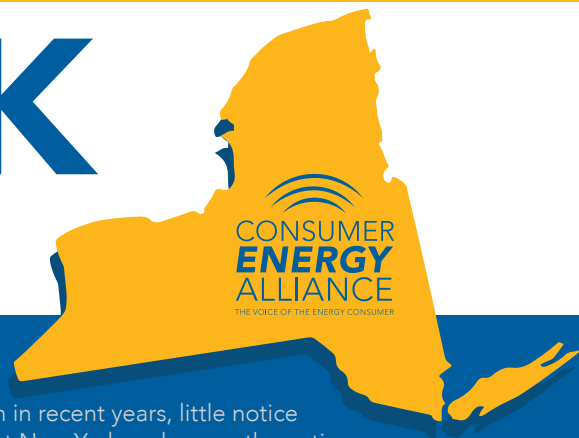


# NEW YORK

## EMISSIONS ANALYSIS



### NEW YORK'S EMISSIONS ARE DECLINING

While the nation's increased energy production has received a great deal of media attention in recent years, little notice has been paid to the significant emission reductions and overall environmental improvement New York and across the nation. The World Health Organization identifies outdoor air emissions as "a major cause of death and disease globally" and attributes emissions such as particulate matter (PM), ozone (formed by volatile organic compounds (VOCs), nitrogen oxides (NOx) and sulfur dioxide (SO2) to lung cancer, respiratory infection, heart disease and stroke. The economic impacts of these air emissions include increased health care costs, decreased labor productivity and declining agricultural crop yields.

Even as New York has modestly increased its energy production and its expanded use of natural gas has surged, emissions of key air pollutants and greenhouse gases have declined significantly across the state.

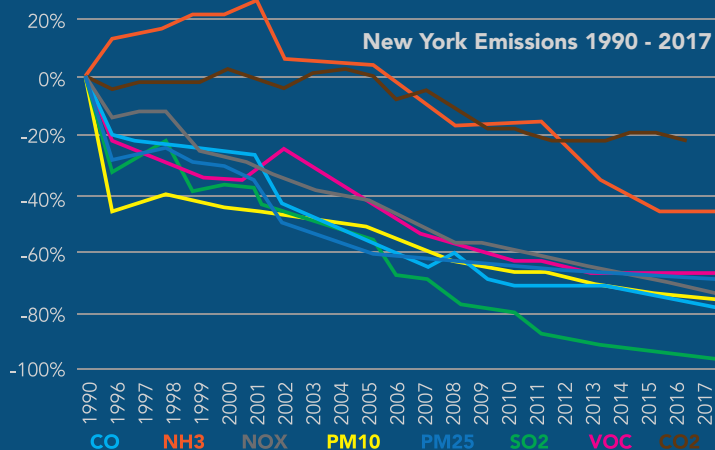


Figure 1. New York Emission Trends 1990-2017 (Source: U.S. Environmental Protection Agency and Energy Information Administration) NOTE - 2014 EPA emissions data omitted due to reporting error; EIA CO2 data only available through 2016

From 1990 to 2017, New York's emissions of key pollutants have decreased across the board:

- 73 percent reduction in nitrogen oxides (NOx)
- 95 percent reduction in sulfur dioxide (SO2)
- 77 percent reduction in carbon monoxide (CO)
- 13 percent reduction in volatile organic compounds (VOCs)
- 68 percent reduction in fine particulate matter (PM2.5)
- 74 percent reduction in coarse particulate matter (PM10)
- 46 percent reduction in ammonia (NH3)

Additionally, from 1990 to 2016, New York's carbon dioxide (CO2) emissions declined by 22 percent.

- 224 percent increase in the state's gross domestic product (GDP)
- 8.8 percent increase in population
- 6.4 percent increase in vehicle miles traveled per capita

New York's cleaner air means that the state's wildlife and natural assets will be protected. This ensures that New York's tourism industry, which brought in \$114.8 billion in 2018, will continue to thrive. Not only that, New York's families and children can enjoy all their state has to offer in a healthier way, from hiking the Adirondacks to sunbathing on one of Long Island's beaches.

Additionally, cleaner air means that New York's 35,000 family farms - providing more than \$50 billion in statewide annual income - will be able to provide products found at dinner tables across the country, as well on the menus of New York City's thriving farm-to-table restaurant scene.

### NEW YORK ECONOMIC GROWTH

Taken by itself, New York State is one of the largest economies in the world, ranking 11th globally – between Canada and South Korea. In 2017, New York's GDP was more than \$1.5 trillion – 8 percent of the U.S. total. The state's leading industries are as diverse as its landscape, with agriculture from upstate New York's rich farmland driving the economy. And it goes without saying, New York City is one of the world's great financial capitals. The state is also home to thriving health care and biotechnology research sectors.

### NEW YORK ENERGY CONSUMPTION

More than 78 percent of the state's energy needs are fueled by oil and natural gas. New York is one of the top five petroleum consumers and the sixth-largest natural gas consumer in the U.S. However, due to the state government's ban on producing the oil and gas reserves within the state, New Yorkers must rely on oil and gas supplies from Pennsylvania and Ohio.

Nearly 40 percent of the Empire State's electricity is derived from natural gas and downstate demand is substantial – with nearly 70 percent of New York City's power drawn from it. Additionally, 60 percent of the state uses natural gas for heat. These challenges are compounded by current natural gas service moratoriums for New York City, Long Island and Westchester County, where local utilities have been unable to provide new or additional service due to a lack of natural gas supplies caused by pipeline infrastructure permit denials.

From 1990 to 2015, total emissions from the electricity generation sector fell 42 percent while natural gas use for power generation increased more than 150 percent during that same period, according to data from the New York State Energy Research and Development Authority.

Eighty percent of the petroleum consumed in the state is used by the transportation sector to move New Yorkers and goods every day. Almost 25 percent of New York households reply on petroleum for heating oil during the winter.

## U.S. ENERGY PRODUCTION

New and efficient technologies have enabled the United States to increase its oil and gas production over the last two decades. The U.S. Energy Information Administration reported that the United States was the largest global crude oil producer – surpassing Russia and Saudi Arabia - in late 2018.

## U.S. EMISSIONS ARE DECLINING TOO

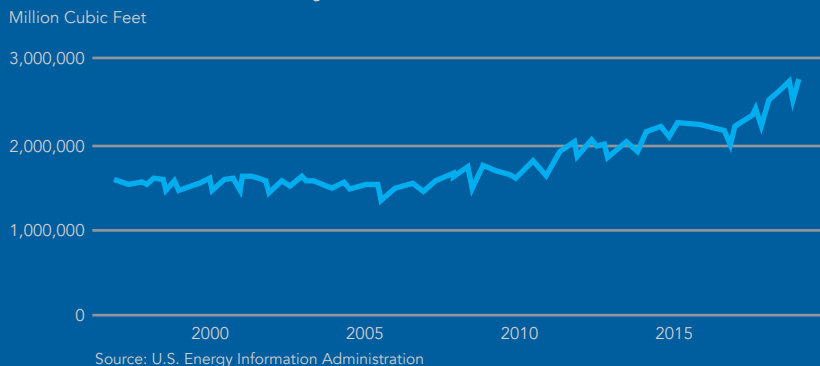
Rigorous environmental standards and energy production can and do coexist. U.S. oil and gas companies banded together to form The Environmental Partnership to improve environmental performance and further reduce emissions of methane and volatile organic compounds. These improvements are occurring at a time when our country has catapulted forward to become the world's leading producer of oil and natural gas.

Worldwide CO2 emissions increased 1.7 percent in 2018. The U.S. stands in stark contrast to global trends, leading the world in reductions by lowering carbon emissions with an anticipated decline of 2.2 percent in 2019 and an additional 0.7 percent decline in 2020. These reductions are forecast in large part due to U.S. usage to natural gas.

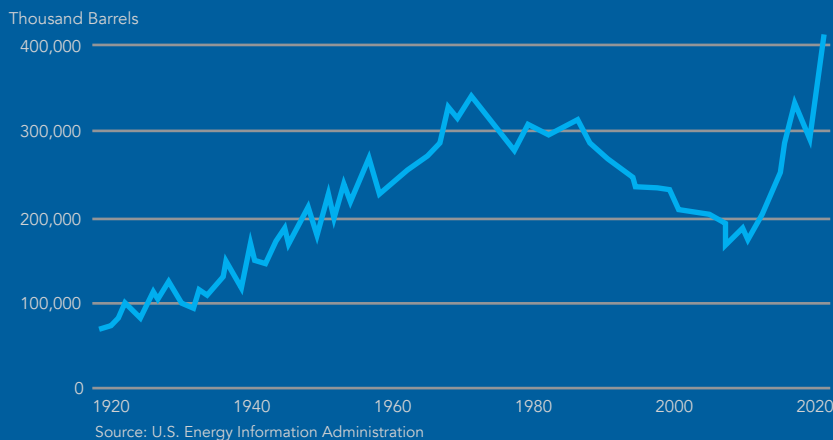
Consumer Energy Alliance (CEA) works to support and advocate for the continued development of a balanced energy portfolio including oil and natural gas as well as other traditional and renewable energy sources. CEA also recognizes the vital role that transportation infrastructure like pipelines and transmission lines serve, as they are critical for moving energy throughout North Carolina and the rest of the country.

With the emission reductions that have occurred recently, North Carolina's policymakers, regulators and leaders must come together in support of access to reliable energy resources and infrastructure development that will help the state continue to thrive, and ensure that hard-working families, seniors, households and small businesses can continue to enjoy the benefits of American energy.

### U.S. Dry Natural Gas Production



### U.S. Field Production of Crude Oil



### National Emissions Trends

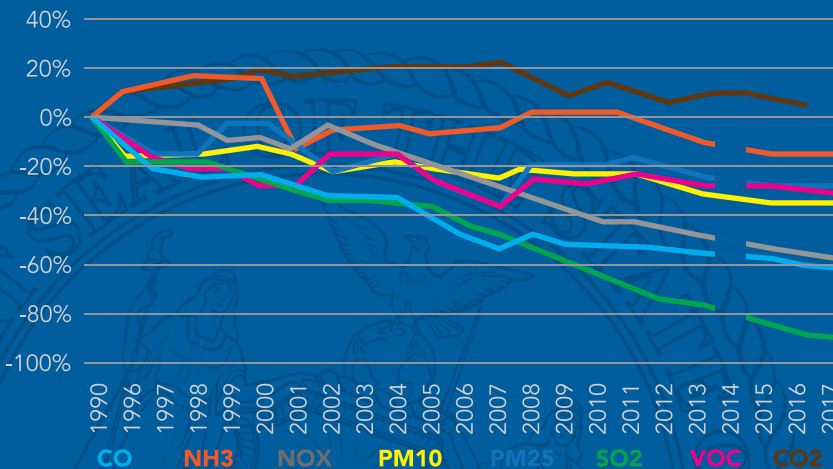


Figure 4. National Emission Trends 1990-2017. (Sources: U.S. Environmental Protection Agency and Energy Information Administration) NOTE - 2014 EPA emissions data omitted due to reporting error; EIA CO2 data only available through 2016.

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