GEORGIA
EMISSIONS ANALYSIS

CONSUMER ENERGY ALLIANCE
THE VOICE OF THE ENERGY CONSUMER

GEORGIA EMISSIONS ARE DECLINING

While the nation's increased energy production has received a great deal of media focus in recent years, little notice has been paid to the significant emission reductions and overall environmental improvement, both in Georgia 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.

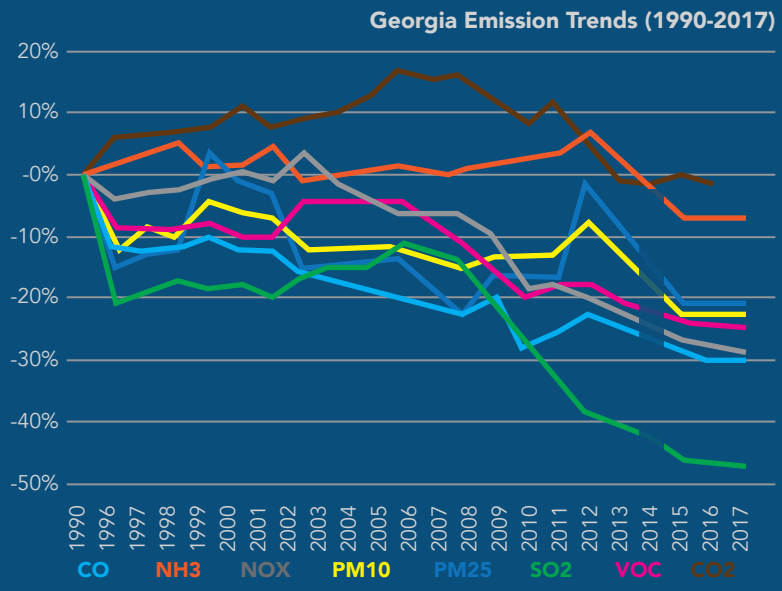


Figure 1. Georgia Emission Trends 1990-2017 (Source: U.S. Environmental Protection Agency and Energy Information Administration) NOTE - 2014 EPA emissions data omitted due to reporting error; EIA CO2 data through 2016

Emissions of key air pollutants and greenhouse gases have declined significantly across the state, even though Georgia remains a large energy consumer:

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

- 58 percent reduction in nitrogen oxides (NOx)
- 95 percent reduction in sulfur dioxide (SO2)
- 60 percent reduction in carbon monoxide (CO)
- 49 percent reduction in volatile organic compounds (VOCs)
- 42 percent reduction in fine particulate matter (PM2.5)
- 45 percent reduction in coarse particulate matter (PM10)
- 14 percent reduction in ammonia (NH3)

Additionally, from 1990 to 2016, Georgia's carbon dioxide (CO2) emissions decreased by almost 3 percent.

These emissions reductions are remarkable in light of Georgia's growth from 1990 to 2017, including:

- A 300 percent increase in the state's gross domestic product
- A 11 percent increase in vehicle miles traveled per capita
- A 60 percent increase in population

Georgia's cleaner air means that the state's wildlife and natural assets will be protected. This ensures that tourism, a $66.2 billion industry for Georgia, will continue to thrive. Not only that, Georgia's families and children can enjoy all their state has to offer in a healthier way, from tubing down the Chattahoochee River to hiking Stone Mountain.

Additionally, improved air quality means that Georgia's 42,000 farms will continue to generate more than $73 billion annually for the state's economy. That's a boon for Georgia peanuts, pecans and poultry.

GEORGIA ECONOMIC GROWTH

Site Selection magazine ranked Georgia "No. 1 for Business" from 2013 to 2018. This is why nine out of 10 Fortune 500 companies operate in Georgia, and 18 of which make their headquarters there. Manufacturing, an energy-intensive industry typically requiring natural gas feedstocks, generates $61.1 billion for the state and employs more than 270,000 workers. With the ninth-largest state economy in the U.S., Georgia is also home to a long list of other industries such as technology, life sciences, film and aerospace products.

GEORGIA ENERGY CONSUMPTION

Georgia ranks among the top 10 states in total energy consumption. More than 66 percent of Georgia's energy needs are met by oil and natural gas. In the last decade, electricity generation from natural gas increased almost 2,500 megawatts. Forty percent of Georgia household rely on natural gas for heating during the winter. Georgia receives its natural gas supplies from other states via pipelines or imports from other countries – including Trinidad and Tobago, Qatar and Egypt – via the Elba Island liquefied natural gas import terminal.

With its large network of interstate highways and the world's busiest airport, Georgia's transportation sector consumes nearly 90 percent of the state's petroleum. In fact, Georgia is one of the top 10 petroleum-consuming states in the U.S. Petroleum products arrive in Georgia via interstate product pipelines and imports through the Port of Savannah from several global sources.

U.S. ENERGY PRODUCTION

New, efficient technologies have enabled the United States to increase oil and gas production over the last two decades. The U.S. is now the world's largest crude oil and natural gas producer, having surpassed Saudi Arabia and Russia, respectively, according to the U.S. Energy Information Administration.

U.S. EMISSIONS ARE DECLINING TOO

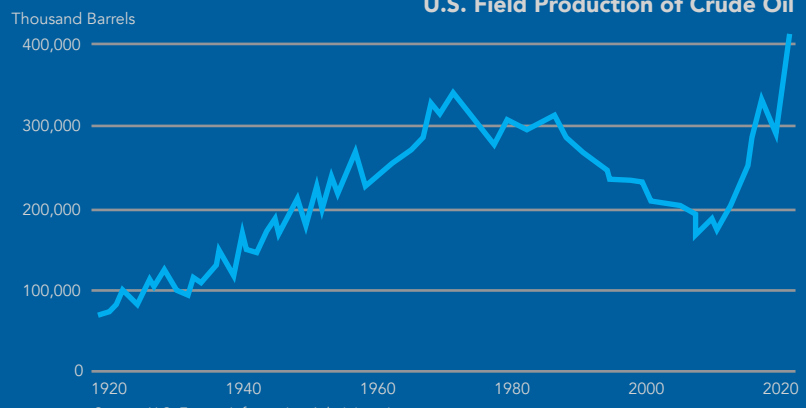
Rigorous environmental standards and energy production can and do co-exist. U.S. oil and gas companies banded together to form The Environmental Partnership to improve environmental performance and further reduce emissions of methane and volatile organic compounds. These improvements are occurring at 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 of 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 Georgia and the rest of the country.

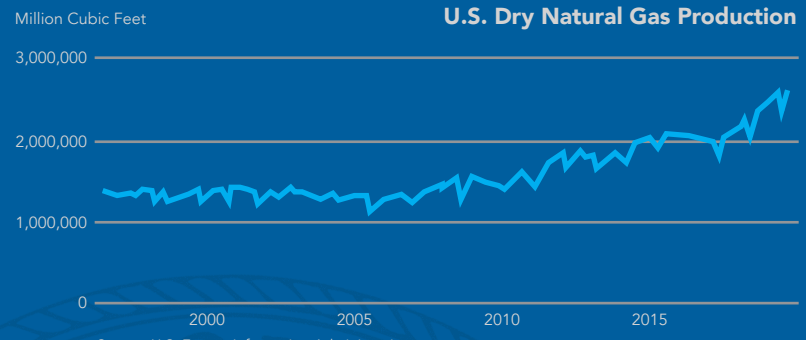
With the emission reductions that have occurred recently, Georgia's policymakers, regulators and leaders must come together in support of access to reliable energy resources and infrastructure development that will keep the state thriving, and ensure that hard-working families, seniors, households and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

U.S. Field Production of Crude Oil



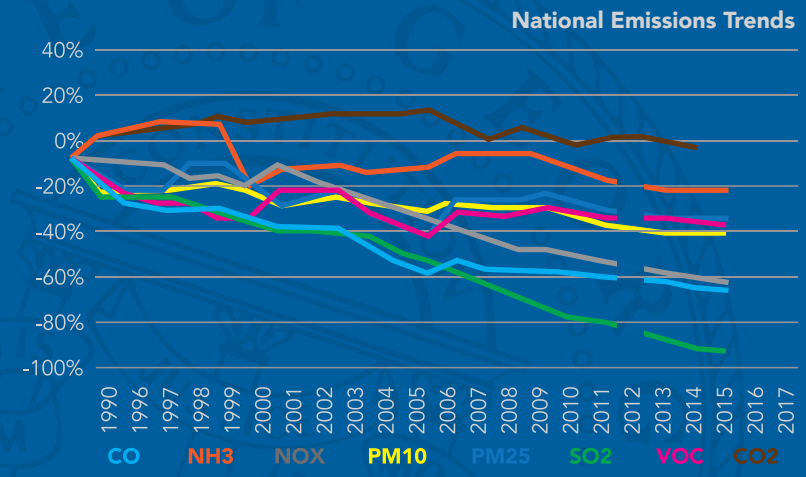
Source: U.S. Energy Information Administration

U.S. Dry Natural Gas Production



Source: U.S. Energy Information Administration

National Emissions Trends



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 C02 data only available through 2016.

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