LOUISIANA EMISSIONS ANALYSIS

LOUISIANA 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 in Louisiana 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. Louisiana Emission Trends 1990-2017 (Source: U.S. Environmental Protection Agency and Energy Information Administration) NOTE - 2014 EPA emissions data omitted due to reporting error

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

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

- 61 percent reduction in nitrogen oxides (NOx)
- 66 percent reduction in sulfur dioxide (SO2)
- 29 percent reduction in carbon monoxide (CO)
- 17 percent reduction in coarse particulate matter (PM10)
- 47 percent reduction in ammonia (NH3)

Additionally, from 2000 to 2016, Louisiana's carbon dioxide (CO2) emissions decreased by almost 8 percent. These emissions reductions are remarkable in light of Louisiana's growth from 1990 to 2017, including:

- A 150 percent increase in the state's gross domestic product
- A 17 percent increase in vehicle miles traveled per capita
- A 10 percent increase in population

Louisiana's cleaner air means that the state's wildlife and natural assets will be protected. This ensures that Louisiana's tourism industry, which brought in \$18.8 billion in visitor spending and employed more than 237,000 residents during 2017, will continue to thrive. Not only that, Louisiana's families and children can enjoy all their state has to offer in a healthier way, from kayaking through the cypress forests of the Atchafalaya to enjoying a Mardi Gras parade.

Additionally, improved air quality means that Louisiana agriculture, including sugarcane, livestock and forestry products, will continue to generate more than \$10 billion annually for the state's economy.

LOUISIANA ECONOMIC GROWTH

Louisiana is growing. Between 2016 and 2018 the state's gross domestic product grew 5.1 percent – outpacing the national growth rate and ranking as the 11th highest rate among states. This economic boom was largely driven by the state's oil and gas industry. Louisiana has built or improved its corporate facilities, roads, airports and pipeline infrastructure to support this phenomenal growth. For the second year in a row, Site Selection magazine ranked Louisiana second among U.S. states for infrastructure investment.

LOUISIANA ENERGY CONSUMPTION

Louisiana is ranked first in the U.S. for total energy consumption per capita. The state is also the third-largest natural gas consumer in the nation, behind California and Texas. More than 86 percent of Louisiana's energy needs are met by oil and natural gas. Additionally, one in three Louisiana households rely on natural gas for heat during the winter months.



LOUISIANA ENERGY PRODUCTION

Louisiana is one of the top five natural gas-producing states – accounting for 7 percent of total U.S. natural gas production. The Haynesville Shale formation located in the state's northwestern corner is one of the country's leading gas-producing regions. Louisiana also plays a pivotal role in the transportation of natural gas throughout the U.S. With an expansive interstate and intrastate pipeline network, Louisiana is also home to North America's most active natural gas market – the Henry Hub.

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 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 Louisiana and the rest of the country.

With the emission reductions that have occurred recently, Louisiana'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 continue to enjoy the benefits of American energy.



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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