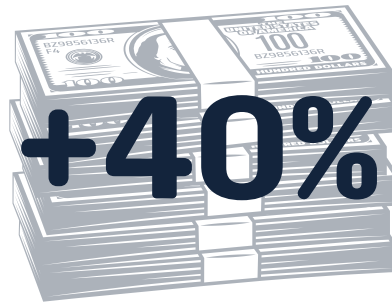


IOWA AIR POLLUTION DECLINES

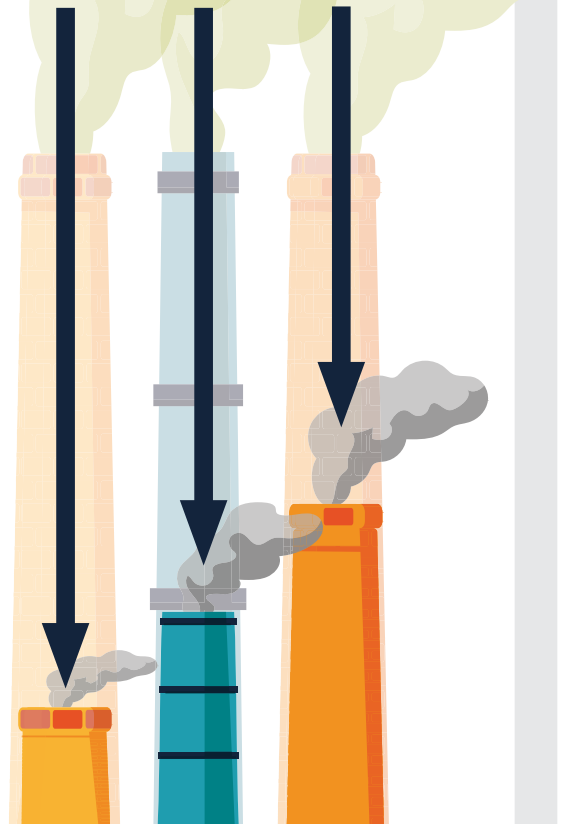
While Iowa's Economy Grows

Over the last 30 years, Iowa facilities worked hard to reduce air emissions. Air quality improved as companies replaced aging equipment with more efficient emissions controls. These changes, combined with federal regulations and state programs, improved air quality dramatically. Better air quality improves public health by making it easier to breathe and reducing serious health threats. Nitrogen oxides and volatile organic compounds contribute to form pollutants like fine particulate matter and ozone, the most common pollutant in smog. Fine particles, called PM2.5, are less than $\frac{1}{30}$ th the width of a human hair. Because they can travel deep into the lungs, fine particles pose the greatest health risks, especially to people with heart and lung disease, children and older adults. AirNow.gov tells you how clean or polluted your air is, and what associated health effects might be a concern for you.

Iowa's gross domestic product soared by \$81 billion or 40% in 2020 compared to 2005, while Iowa's population increased 8%. Attaining good air quality protects public health, allows existing facilities to expand and attracts new industry to Iowa.



S02 -85%
NOx -68%
PM2.5 -55%



69%

The largest industries (point sources) played their part in clearing Iowa's air. Approximately 300 of the largest point sources improved air quality considerably, especially during the past 16 years—decreasing emissions from six common air pollutants 69% since 2005.

PM2.5: Particulate matter less than 2.5 microns in diameter

PM10: Particulate matter less than 10 microns in diameter

S02: Sulfur dioxide

NOx: Nitrogen Oxides

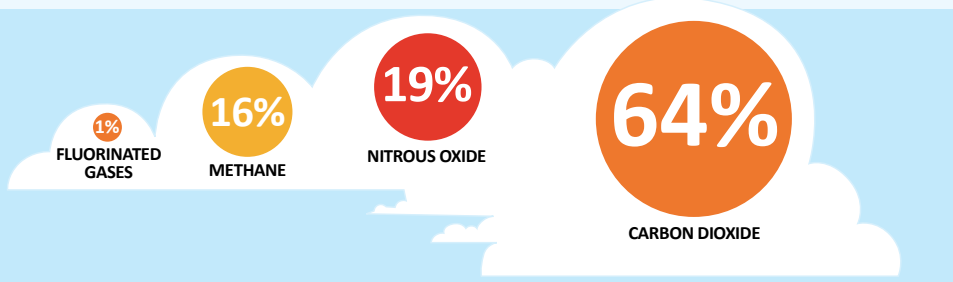
CO: Carbon Monoxide

VOC: Volatile Organic Compounds

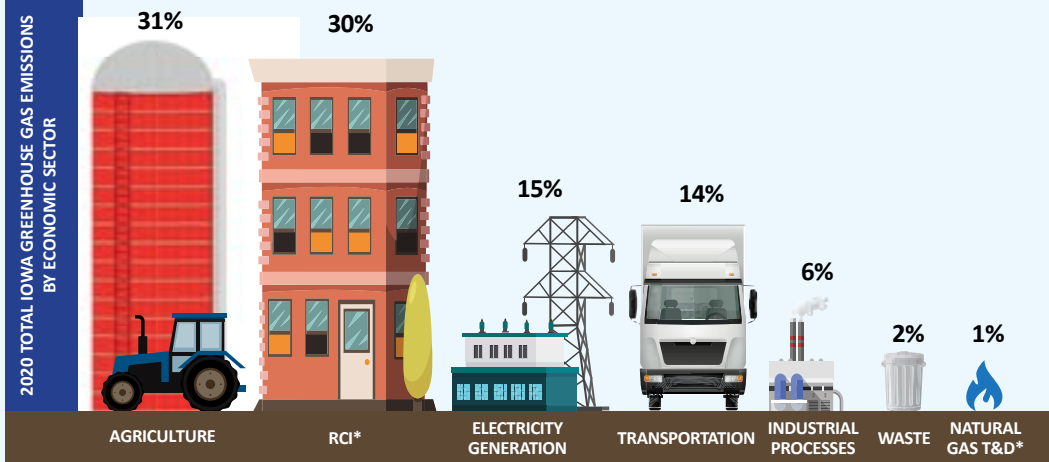
Even better news, three air pollutants that contribute to pollution endangering human health have decreased significantly since 2005.

Air Quality Bureau/Operating Permits & Emission Inventory Section—January 2022

2020 IOWA GREENHOUSE GAS EMISSIONS



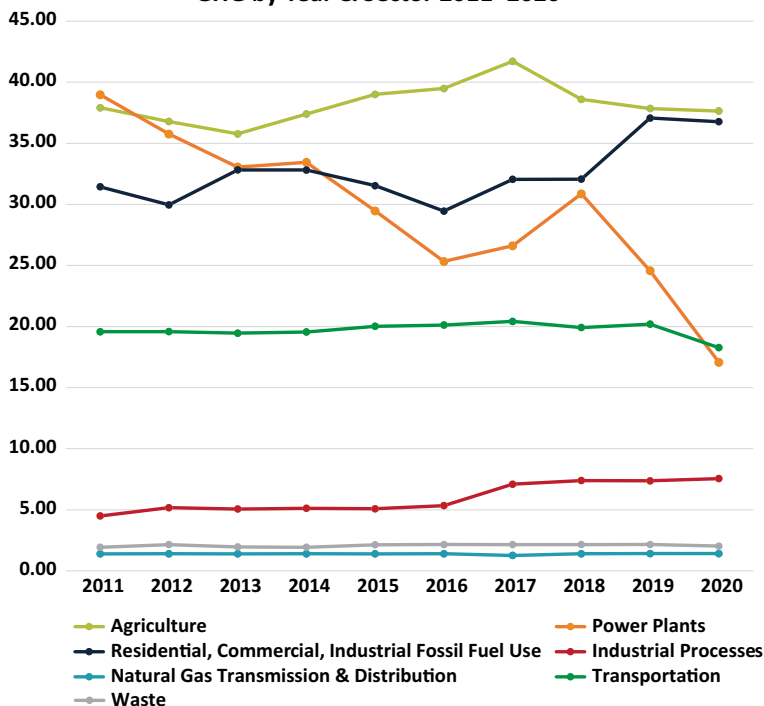
2020 TOTAL IOWA GREENHOUSE GAS EMISSIONS BY ECONOMIC SECTOR



RCI* = Residential, Commercial and Industrial, Natural Gas T&D = Natural Gas Transmission & Distribution

Nearly all carbon dioxide emissions originate from fossil fuel combustion by power plants, the residential/commercial/industrial sector or transportation sources. Smaller amounts of methane and nitrous oxides are emitted—with most coming from agriculture such as livestock, manure and agricultural soils. Fluorinated gases are emitted from insulation in electric power transmission and distribution systems, refrigerants, propellants, etc.

GHG by Year & Sector 2011–2020



2005
37
MMtCO_{2e}

Reduction of 54% from 2005 levels
2020 emissions from fossil fuel-fired power plants declined to their lowest level since 2005 as Iowa's power plants switched to more renewable energy sources.

2020
17
MMtCO_{2e}

As required by Iowa Code, DNR completes an annual inventory of greenhouse gas emissions. The 2020 Iowa Statewide Greenhouse Gas Emissions Inventory Report showed total greenhouse gas pollutants decreased nearly 8% from 2019 and 11% from 2011 levels. The decrease from 2019 – 2020 is primarily from power plants moving towards more renewable energy and from transportation as Iowans drove 12% fewer vehicle miles in 2020.

Find more detailed Iowa emissions data and current air quality permit applications at www.iowadnr.gov/Environmental-Protection/Air-Quality.