Delaware's 2021 Greenhouse Gas (GHG) Inventory

Delaware's 2021 GHG Inventory includes multi-sector estimates and projections from 1990 through 2050. In 2021, gross GHG emissions in Delaware were 17.6 million metric tons of carbon dioxide equivalent (MMTCO₂e), a 23.8% decrease from Delaware's 2005 baseline year. This indicates that Delaware is making steady progress towards its emission reduction goals of a 50.0% reduction by 2030 and net-zero by 2050 from a 2005 baseline. However, business-as-usual projections suggest emissions will increase 22.7% from 2021 levels by 2050 absent policy intervention.



Delaware's 2021 GHG Emissions by Sector and End-uses



Key Takeaways

1) Decarbonizing the electrical grid has the greatest emissions reduction potential in the mid- and long terms of other actions.

2) Energy efficiency actions provide effective and low-cost strategies to meet Delaware's short-term goal and remain important for emissions reduction in the long term.

3) Electrification of the transportation and building sectors is an important transition that can lead to significant GHG emissions reductions over time. However, these actions depends on decarbonizing the electrical grid.

Recent Updates

Updated Global Warming Potentials

Global warming potentials calculate the potency of different greenhouse gases relative to carbon dioxide (CO₂). Delaware updated GWPs for all historic years, which led to a slight change in values across the time series including a change in the 2005 baseline year from 23.3 to 23.1 MMTCO₂e. from fossil fuel combustion,

State Inventory Tool Updates

Delaware uses EPA's State Inventory Tool to calculate most inventory sectors. The tool is updated annually to align its methods with those of the U.S. GHG Inventory. Updates in recent years primarily impact the industrial, CO₂ wastewater, and stationary modules.



2021 Data Analyses

The sectors with the largest contribution to Delaware's GHG emissions remain the transportation, electric power, and industrial sectors accounting for about 79.8% of all gross GHG emissions in 2021. The increase in emissions from 2020 to 2021 was largely due to the impact of economic rebound post COVID-19 pandemic.