

CO₂ Emissions Forecasting

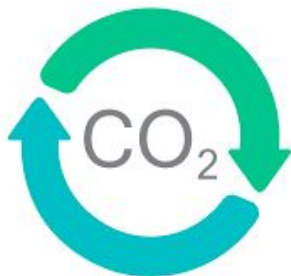
Predicting U.S. CO₂ emissions from energy consumption

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Background & Research Question

- Coal has been on the decline due to poor economics and increased scrutiny on emissions
- Natural gas has concurrently been on the rise due to low prices caused by fracking revolution
 - Decrease in coal emissions partially offset by new natural gas plants
- Project aims to forecast the CO₂ emissions from coal, natural gas, and petroleum based on historical data and determine if total CO₂ emissions are declining as needed to meet climate goals
 - Biden goal to reduce GHG emissions by 50% below 2005 levels by 2030



Dataset

U.S. Energy Information Administration Monthly Energy Review February 2024

Table 11.1 Carbon Dioxide from Energy Consumption by Source

Data Category: Environment

Energy Sources: Coal, Natural Gas, Petroleum

Sampling frequency: Monthly

Training Data Date Range: Jan 1973-Nov 2023 (n=611)

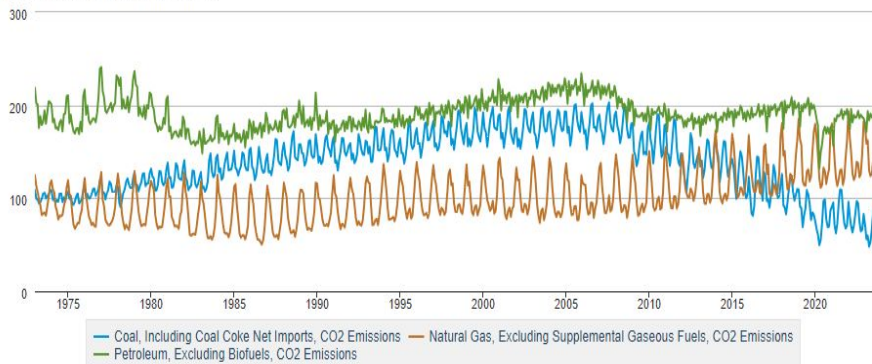
Forecast Length: 6 years (2030)

Link: <https://www.eia.gov/totalenergy/data/browser/index.php?tbl=T11.01#/?f=M>

Table 11.1 Carbon Dioxide Emissions From Energy Consumption by Source

DOWNLOAD

Million Metric Tons of Carbon Dioxide



eia Data source: U.S. Energy Information Administration