

Greenhouse Gas Equivalencies Calculator

Convert emissions or energy data into concrete terms you can understand — such as the annual CO₂ emissions of cars, households, and power plants.

The Greenhouse Gas Equivalencies calculator allows you to **convert emissions or energy data to the equivalent amount of carbon dioxide (CO₂) emissions from using that amount**. The calculator helps you translate abstract measurements into concrete terms you can understand, such as the annual emissions from cars, households, or power plants. This calculator may be useful in communicating your greenhouse gas reduction strategy, reduction targets, or other initiatives aimed at reducing greenhouse gas emissions.

Updated March 2022



These estimates are approximate and should not be used for emission inventories or formal carbon emissions analysis. See [Calculations & References](#) for equations and sources used.

Step 1 – Enter and convert data

Select data to convert:

- ☒ Energy data
- ☐ Emissions data

Enter data:

Unit

Amount

☐ Gallons of gasoline

☐ Gasoline-powered passenger vehicles

☐ Kilowatt-hours avoided

☒ Kilowatt-hours used

☐ MCF of natural gas

☐ Therms of natural gas


Convert data Clear Fields

Step 2 – View results


0.425 Kilograms of Carbon Dioxide (CO₂) equivalent

This is equivalent to greenhouse gas emissions from:

0.0001 gasoline-powered passenger vehicles driven for one year




1.1 miles driven by an average gasoline-powered passenger vehicle




This is equivalent to CO₂ emissions from:


0.048 gallons of gasoline consumed




0.042 gallons of diesel consumed




0.47 pounds of coal burned




0 tanker trucks' worth of gasoline




0.0001 homes' energy use for one year




0.0001 homes' electricity use for one year




0 railcars' worth of coal burned




0.001 barrels of oil consumed




0.017 propane cylinders used for home barbeques




0 coal-fired power plants in one year



0 natural gas-fired power plants in one year




51.7 number of smartphones charged




This is equivalent to greenhouse gas emissions avoided by:


0.0001 tons of waste recycled instead of landfilled




0 garbage trucks of waste recycled instead of landfilled




0.018 trash bags of waste recycled instead of landfilled



0 wind turbines running for a year




0.016 incandescent lamps switched to LEDs




This is equivalent to carbon sequestered by:


0.007 tree seedlings grown for 10 years



0.0005 acres of U.S. forests in one year



0 acres of U.S. forests preserved from conversion to cropland in one year



About This Calculator

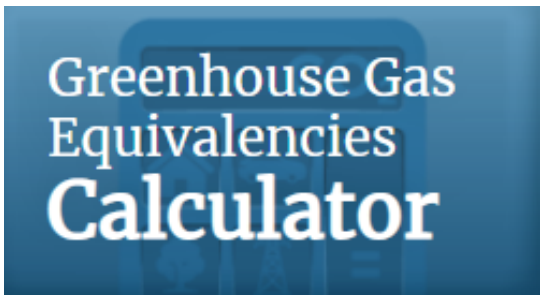
- Calculations & References
- Frequent Questions
- Revision History
- Learn About Greenhouse Gas Emissions
- Calculador de equivalencias de gases de efecto invernadero (en español)

Other Resources

- Power Profiler
- Waste Reduction Model
- AVERT - AVOIDed Emissions and geneRation Tool
- COBRA - CO₂-Benefits,Risk Assessment,Health,Impacts,Screening and Mapping Tool
- Multiple Benefits of Clean Energy

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