

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


559 Kilograms of Carbon Dioxide (CO₂) equivalent

This is equivalent to greenhouse gas emissions from:

0.12 gasoline-powered passenger vehicles driven for one year



1,387 miles driven by an average gasoline-powered passenger vehicle



This is equivalent to CO₂ emissions from:

62.9 gallons of gasoline consumed



54.9 gallons of diesel consumed



618 pounds of coal burned



0.007 tanker trucks' worth of gasoline



0.07 homes' energy use for one year



0.109 homes' electricity use for one year



0.003 railcars' worth of coal burned



1.3 barrels of oil consumed



22.8 propane cylinders used for home barbeques



0 coal-fired power plants in one year



0 natural gas-fired power plants in one year




67,988 number of smartphones charged




This is equivalent to greenhouse gas emissions avoided by:


0.193 tons of waste recycled instead of landfilled




0.028 garbage trucks of waste recycled instead of landfilled




24.2 trash bags of waste recycled instead of landfilled



0.0002 wind turbines running for a year




21.2 incandescent lamps switched to LEDs




This is equivalent to carbon sequestered by:


9.2 tree seedlings grown for 10 years



0.661 acres of U.S. forests in one year



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



About This Calculator

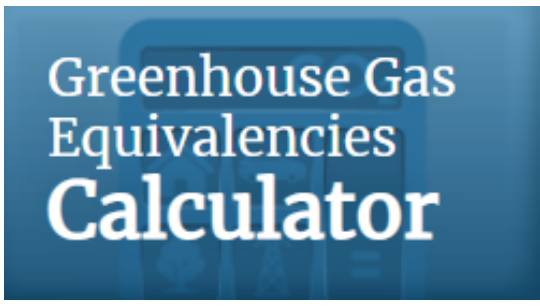
- Calculations & References
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- Calculador de equivalencias de gases de efecto invernadero (en español)

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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