

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


0.339 Kilograms of Carbon Dioxide (CO₂) equivalent

This is equivalent to greenhouse gas emissions from:

0.0001 gasoline-powered passenger vehicles driven for one year



0.841 miles driven by an average gasoline-powered passenger vehicle



This is equivalent to CO₂ emissions from:


0.038 gallons of gasoline consumed



0.033 gallons of diesel consumed




0.375 pounds of coal burned




0 tanker trucks' worth of gasoline



0 homes' energy use for one year



0.0001 homes' electricity use for one year




0 railcars' worth of coal burned



0.0008 barrels of oil consumed



0.014 propane cylinders used for home barbeques



0 coal-fired power plants in one year



0 natural gas-fired power plants in one year



41.2 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



0.015 trash bags of waste recycled instead of landfilled



0 wind turbines running for a year




0.013 incandescent lamps switched to LEDs




This is equivalent to carbon sequestered by:


0.006 tree seedlings grown for 10 years



0.0004 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

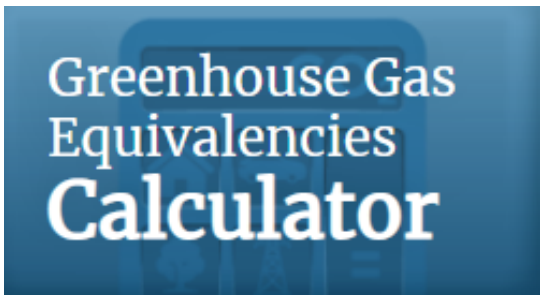
- Calculations & References
- Frequent Questions
- Revision History
- Learn About Greenhouse Gas Emissions
- Calculador de equivalencias de gases de efecto invernadero (en español)

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

Get the Widget

Put the calculator on your website using our widget.



Contact Us to ask a question, provide feedback, or report a problem.



Discover.

- Accessibility
- Budget & Performance
- Contracting
- EPA www Web Snapshot
- Grants
- No FEAR Act Data
- Plain Writing
- Privacy
- Privacy and Security Notice

Connect.

- Data.gov
- Inspector General
- Jobs
- Newsroom
- Open Government
- Regulations.gov
- Subscribe
- USA.gov
- White House

Ask.

- Contact EPA
- EPA Disclaimers
- Hotlines
- FOIA Requests
- Frequent Questions

Follow.



LAST UPDATED ON MARCH 28, 2022

