

Encyclopedia of Green Terms

Carbon Footprint

What is it?

Carbon footprint is the total amount of greenhouse gases produced by human activities, buildings and vehicles. It is measured in units of carbon dioxide.

Why Should We Care?

Every year in the U.S. over 3.2 billion metric tons of carbon dioxide emissions are released into the air. Over three-quarters of these emissions are man-made and are created by the burning of fossil fuels for transportation.

How Do We Calculate it?

The best way to calculate our total carbon dioxide contributions is to complete a carbon footprint calculator. Carbon footprint calculators measure the total carbon emissions based on what you do at home and how you travel.

Click here to calculate your carbon footprint:

www.earthlab.com/carbonprofile

How Can We Help?

Reducing our carbon footprint involves making changes in our personal, professional and everyday life. That means we need to lessen the amount of energy we use in our home and office, we need to recycle more products instead of accumulating waste and we need to reduce our carbon emissions while driving our cars. We can cut our total carbon dioxide emissions in half just by following some easy green guidelines and sticking to them every day.

Fossil Fuels

What is it?

Fossil fuels are non-renewable fuel sources that are found within the top layer of the Earth's crust. They were formed millions of years ago from the organic remains of prehistoric plants and animals. The dead plant and animal matter sank to the bottom of swamps and oceans and were covered by sand and rock, and as more rock weighed down on them they eventually squeezed out with water.

Why Should We Care?

Fossil fuels provide energy so that we can eat, turn on our television, stay warm, and drive our cars. They provide about 66% of the world's electrical power. They also supply 95% of the entire world's energy demands. But they also contribute to global warming, and there are many other energy sources we can use that are safer for the environment.

How Can We Help?

We can start using alternative forms of energy such as solar energy and wind energy.

Renewable Energy

What is it?

Renewable energy, also known as green energy, is energy that utilizes natural resources and can be replenished in a short period of time. There are four main renewable energy sources:

- **Solar Energy** – Energy from the sun.
- **Wind Energy** – Energy generated by the wind.
- **Geothermal Energy** – Energy generated from heat within the Earth.
- **Tidal Energy** – Energy created by the movement of tidal currents.

Why Should We Care?

By 2030, global energy use is projected to be at least double what it is today. The International Energy Agency predicts that 80% of this new growth will be met by fossil fuels—coal, oil and gas. If this trend continues unchecked, it will result in a 52% rise in greenhouse gas emissions around the world.*

Benefits of Renewable Energy

Renewable energy sources are an increasingly viable alternative. Not only are they carbon neutral (emitting almost no Co2 into the atmosphere), they have numerous other advantages. They rely on free fuel, so running costs are low and predictable, avoiding the economic chaos of fuel price fluctuations. They are abundantly available worldwide. If progress in this sector continues at current rates, up to a billion people could use renewable energy in the next decade and renewable could account for a third to a half of global energy production by 2050.*

Compact Fluorescent Light (CFL) Bulbs

What is it?

Compact fluorescent light (CFL) bulbs are light bulbs that use up to 75 percent less energy than a traditional incandescent bulb.

Why Should We Care?

- One CFL bulb prevents more than 450 pounds of carbon dioxide emissions from a power plant over the course of its lifetime. It uses at least two-thirds less energy than incandescent bulbs, and lasts up to 10 times longer.~
- You'll save \$30 or more over the life of the bulb.~
- If you fit a CFL in a room where the light is on for an average of four hours a day, it will pay for itself within a year.*
- Incandescent bulbs are an old technology—about 80% of the energy used to create the light escapes in the form of heat.*
- A worldwide switch to CFLs would cause a drop in electricity use that we could close more than 250 coal-fired power plants.*
- If every household in the U.S. were to switch one bulb to a CFL they'd avoid the same amount of pollution as produced by a million cars.*

How Can We Help?

Switch from incandescent light bulbs to CFL bulbs.

Light-Emitting Diodes (LED)

What is it?

LEDs are small, solid light bulbs which are extremely energy-efficient. Because they do not have a filament, they are extremely durable and last about 10 times longer than CFLs and more than a hundred times longer than incandescent bulbs.

Why Should We Care?

LEDs produce up to 90% less power than incandescent bulbs which reduces the load on your electrical system including your battery, alternator, and power converter. LEDs are rated for 100,000 hours compared to 3,000 for incandescent bulbs.

How Can We Help?

Switch from incandescent light bulbs to LEDs.

Leadership in Energy and Environmental Design (LEED)

What is it?

LEED is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Why Should We Care?

LEED is quickly becoming a market advantage and in some cases a market requirement.

Benefits of being LEED certified include:

- Building life-cycle and energy cost savings
- Reduced operation costs
- Higher property value
- Healthier and more productive occupants
- Reduction in carbon emissions

How Can We Help?

Work to get your building LEED certified.

Information Source

www.greenstudentsu.com

* *How to Reduce Your Carbon Footprint* by Joanna Yarrow

~ *Green Greener Greenest* by Lori Bongiorno

^ www.usgbc.org