



Guide to **Cutting Your** Business/Household **Carbon Footprint**



Hempoffset Guide to Cutting Your Business/Household Carbon Footprint

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€ financials. Metric measurements.

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Take that first step

Like you, we know that the task ahead is difficult. It's becoming increasingly clear that the climate crisis is with us now, and that people are already dying, starving, losing their homes, and losing any chance of a decent future because we're adding too much carbon dioxide, CO₂, to the atmosphere. Every one of us is responsible for CO₂ emissions, some a lot more than others. But because we play a 'small part' in the bigger problem, that doesn't mean that our actions to stop the climate crisis are less important. In fact, we each have the potential to cause change, to make a real impact on a global scale.

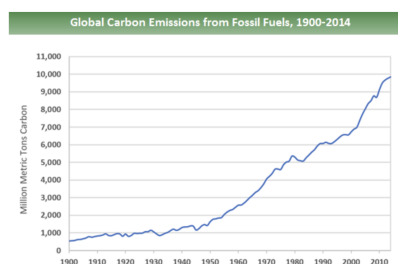
The butterfly effect

Wikipedia describes the butterfly effect: 'In chaos theory, the butterfly effect is the sensitive dependence on initial conditions in which a small change in one state of a deterministic nonlinear system can result in large differences in a later state.' Or, put more simply: 'any situation where a small change is the cause of larger consequences.' So a butterfly flapping its wings can (inadvertently!) trigger a tornado. On the plus side, cutting your carbon emissions could prevent a hurricane from forming, or could be enough to prevent a climate tipping point. So be a good butterfly.

Understanding your carbon footprint

The bottom line is that everything to do with fossil fuels causes greenhouse gas/GHG emissions. CO2 is by far the biggest cause of global warming, but other gases such as methane and nitrous oxide (yes, laughing gas, not very funnily) also contribute to the problem. On a global scale, the main causes of global warming emissions are:

Sector	Example	% GHG emissions
Electricity and heat production	Gas, coal and oil power stations	25%
Agriculture and forestry	Dairy farming, livestock, deforestation	24%
Industry	Steel, cement production	21%
Transportation	Gasoline and diesel for cars, ships, trains and planes	14%
Other energy	Mainly fossil fuel production and processing (!)	10%
Buildings	Heating buildings, cooking in homes	6%



Source: Boden, T.A., Marland, G., and Andres, R.J. (2017). Global, Regional, and National Fossil-Fuel CO2Emissions. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A. doi:10.3334/CDIAC/00001_V2017.

The trends in greenhouse gas emissions are, of course, pretty dire.

The need is to remove about 7.6 gigatonnes (billions of tonnes) of CO2 every year by 2030, or we will go over the 1.5 degrees Celsius threshold. This would mean catastrophic climate impacts, with a number of climate tipping points already in sight. Climate tipping points, such as the loss of the Gulf Stream, the melting of the Greenland ice sheets, and the thawing of permafrost in the tundra regions, could trigger a death spiral with unpredictable results. So we need to act quickly and decisively. And that's where you come in!

Reducing your carbon footprint

Let's review the key carbon footprint contributors in every business and household, and consider ways to reduce them.

CO2 Source	How bad is it?	How to reduce it
Electricity	Depends on how it's produced. Coal is, by far, the worst. Oil is bad. Natural gas is the least bad fossil fuel. Wind and solar are renewable electricity sources, with zero (operational) carbon footprint.	Talk to your electricity supplier and learn about their fuel mix. Find a renewable electricity supplier. Install solar panels.
Natural gas	The best fuel for cooking, widely used in the food industry, has a relatively low carbon footprint. But is it sustainable, as the EU seems to think? Not a chance.	The drastic reduction of Russian natural gas in EU markets means that businesses are having to adapt quickly to reduced supplies. Learn from this process.
Petrol	If your electricity supply comes from renewable sources, then you can eliminate this nasty pollutant completely by changing to an electric vehicle. Even a grid-powered electric vehicle should have a much-reduced carbon footprint, depending on the proportion of natural gas used in your electricity supply fuel mix.	Get an electric vehicle, or a hybrid vehicle. Better yet, shift to public transport, cycle, or walk.
Diesel	Contrary to the lies once peddled by car manufacturers, diesel is more polluting than unleaded petrol.	Get an electric vehicle, or a hybrid vehicle, or even a petrol vehicle. Better yet, shift to public transport, cycle, or walk.
LNG	It depends on how it's used. Good for cooking, terrible for using in outside heaters, where about 90% of the heat is lost to the sky.	Don't use it for outside heating.
Air travel	The carbon impact of flying depends on the length of the flight and how many passengers are on board.	Avoid short flights or flights where the plane isn't full. Lobby for 'ghost flights' to be banned (empty planes that fly just to keep airport landing slots).
Website(s)	Every bit of data stored in 'the cloud' or on a website needs a data centre, consuming electricity 24/7/365 just to store it.	Delete unnecessary data from your cloud storage. Host your website with a provider that uses renewable electricity or offsets their carbon footprint with genuine carbon credits.

Use our [simple carbon footprint calculator](#) to get a clear view of your business's carbon footprint.

Learn more

www.hempoffset.com

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