

THE GreenGUIDE

environmental change begins at home.

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<http://www.thegreenguide.com/doc/119/calculator>

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A Calculated Loss: How to Reduce Your Global Warming Emissions

by Emily Main and P.W. McRandle

Time to get on the scales. Based on your home and transportation energy consumption, this chart contains average estimates for carbon weight loss, resulting from the actions listed in the right-hand column. Your precise weight loss can vary according to where you live and who provides your energy. That's because the amount of carbon dioxide released depends on the mix of fuel sources your energy provider uses. Coal power, for instance, emits far more CO₂ than hydro-electric power, and renewables, such as wind and solar, emit the least.

To do these calculations, we relied on averages from the Energy Information Administration. We used a national average of 1.34 lbs. CO₂/kWh, but you can find the multiplier for your state at eia.doe.gov/oiaf/1605/coefficients.html.

If you know the wattage of an item or appliance, you can calculate the CO₂ emissions with this formula (we're using a 75-watt bulb as an example): $(75 \text{ Watts} \times 2 \text{ Hours Used Daily} \times 365 \text{ days}) / 1000 \times 1.34 \text{ lbs. CO}_2/\text{kWh} = 73 \text{ lbs. CO}_2/\text{year}$ (or use your state's carbon coefficient from the web site above).

Extra Credit

Offset Carbon you can't save at home. See "[Shifting Into Neutral](#)" and "[Cutting Costs in a Fuel Scarce World](#)" for more ideas.

ROOM	LBS. CO ₂ Emitted Annually	ACTION (savings are annual averages)
BATHROOM		
8 minute daily shower	1,368	Take 2 minutes off your shower and save 342 lbs.
BEDROOM		
Lighting	73	Replacing one 75-watt incandescent bulb with a 19-watt CFL can cut 55 lbs.
KITCHEN		
Food	3,274	If, like most Americans, you get close to 30 percent of your calories from meat, dairy and poultry, your diet contributes over 3,274 lbs. Vegetarian diets contribute half that, but you can also replace your calories from red meat with fish, eggs and poultry, for savings of over 950 lbs.
Refrigerator	1,660	If your fridge door can't hold a dollar, you'll be leaking carbon and money as well as cold air, so get it fixed. If the seal holds, and you clean your refrigerator's coils, defrost regularly and keep the top clear of

Switch to an Energy Star Fridge		clutter, you can save over 700 lbs.
Recycling		Pre-2001 fridges are much less energy-efficient than today's Energy Star models, which can save you over 500 lbs.
LAUNDRY		Recycle paper, plastic and glass and save 1,000 lbs.
Clothes Washer	160	90 percent of the electricity a washing machine consumes goes to heat the water. If you wash just half your loads in cold water, you'll save at least 72 lbs.
Dryer	1,446	Line- or rack-drying just half your loads will slash 723 lbs.
LIVING ROOM		
TV sets, DVD players, cable boxes and other home entertainment peripherals	up to 1,608	These electronics can pump out CO ₂ while they're off because of clocks and easy-on features like "standby" mode. Plug them into a power strip and turn it off when not in use to save 240 lbs.
Computer	497	Do the same for your computer and you'll save 43 lbs.
WHOLE HOUSE		
Heating	6,389 (natural gas) 4,722 (electric heat)	With natural gas heat, you can shave up to 320 lbs. for every degree you lower your thermostat below 70 in winter (236 lbs. for electrical heat).
Air Conditioner	2,263	In the summer, save 121 lbs. for every degree above 72 you raise your thermostat (even more if you raise it above 78 degrees).
Sealing your home		Caulking and weather stripping your home can knock off 639 lbs. from your natural gas heating (472 if electric) and 226 lbs. from your a/c.
Water Heater	3,419	Lowering your water temperature from 140 degrees to 120 degrees F prevents scalds and cuts out 479 lbs.
TRAVEL AND COMMUTING		
Daily drive to work	2,750	Switch to public transport: Light rail will save a whopping 1,366 lbs. for a 12-mile commute, but your standard city bus will trim 804. Heavy rail subway systems aren't as efficient, cutting 288 lbs. for the same commute.
Tires		Keep your tires properly inflated and save 250 lbs. (see tires or owner's manual for pressure)
500 mile flight	310	Take the train instead for savings of 205 lbs.
TOTAL		If you took all of these actions, you'd save:
	25,217 (natural gas heat)	7,669 (natural gas heat)
	23,550 (electric heat)	7,418 (electric heat)

Take a Quick Carbon Quiz

With Americans putting out 22 tons of carbon dioxide per person, significantly reducing your personal share of global warming emissions may look like a daunting task. Not to worry, you can do it! It's easier than you might think.

Along the way, you're bound to devise your own tips and strategies, as has our publisher, Wendy Gordon, in her pledge to lose 7.5 tons of CO₂ this year. Share your ideas by joining our [Carbon Diet discussion](#). Every dieter needs support. Together, we can meet reduction goals!

Here are a few simple questions to ask yourself. After taking the quiz, look for the answers—and carbon savings you may already be achieving—on our Carbon Calculator Chart to the left.

Bathroom

How much time do you spend in the shower?

Bedroom

Have you replaced at least one incandescent bulb in your bedroom with a compact fluorescent light bulb (CFL)?

Kitchen

Does a dollar bill shut in your refrigerator door stay in place or slip down?

If you buy a new fridge, would you choose Energy Star?

Do you recycle paper, plastic and glass?

Do you get nearly a third of your daily calories from animal products? Can you eat less red meat?

Laundry

Can you wash half your laundry in cold water?

Can you hang-dry at least half of your laundry loads?

Living Room

Can you plug your home entertainment devices into a power strip and turn it off when they're not in use?

Can you lower the heat on your thermostat modestly when it's cold?

Whole House

Can you find, caulk and seal all the potential air-leaking cracks in your home?

Is your water heater set at 120 degrees F or lower?

Do you have a programmable thermostat, which will automatically adjust your home's temperature while you're asleep or away? Or, have you at least tried turning down your radiator?

Commuting and Traveling

Can you take public transportation instead of driving to work?