

More about Solutions to Global Climate Change

On these pages, you'll find a bunch of ways cut down on greenhouse gas emissions, make the Earth healthier for all people and all living things, and save money!

There are many areas of our lives where smart actions will save money while helping the environment:

- inside our homes
- in our yards
- at the store
- on the road

Climate smart money-savers will reduce energy use and the resulting emissions of carbon dioxide - a major contributor to global warming - and other atmospheric gases that trap the heat of the Earth. Even if we do only about one-third of the actions on this list, we can reduce our emissions of heat-trapping "greenhouse gases" (ghg's) like carbon dioxide by 12,280 pounds per year.

Today, the United States pumps more carbon dioxide into the atmosphere than any other country in the world. Each of us contributes about **22 tons** of carbon dioxide emissions per year, whereas the world average per capita is about 4 tons. The good news is that there are many ways you and your family can help reduce carbon dioxide pollution and improve the environment for you and your children:

- ***Cut your utility bills by purchasing energy-efficient appliances, fixtures, and other home equipment and products.*** Energy efficiency is essential in significantly reducing greenhouse gases. The average house is responsible for more air pollution and carbon dioxide emissions than is the average car. Use compact fluorescent lights and you'll use 40% less energy for lighting. Insulate your home and tune up your furnace. You can even install efficient sink and shower heads. – you'll save 2,480 pounds of CO₂ in a year.
- ***Insulate:*** walls, windows, pipes, hot water tank, floors above unheated/uncooled areas, attic.
- ***Save on water use in your home.*** Use low-flow faucets in your showers and sinks. Get low-flush toilets. Lower the temperature on your hot water tank to 120 degrees. Insulate your water heater and all water pipes to reduce heat loss.
- ***Purchase "Green Power" for your home's electricity.*** Green power is electricity that is generated from renewable sources such as solar (solar panels on roofs and photovoltaic windows that convert sunlight directly into electricity), wind, micro-hydro power, and some types of biomass. Although the cost may be slightly higher at present, you'll know that you're buying power from an environmentally friendly energy source, and helping sustainable energy sources to enter the mass market and become cost-competitive. Solar power is the 2nd fastest growing technology. Wind power is the fastest growing technology.

- ***Use hydrogen fuel cells at home, in offices, industries, and in vehicles.*** The byproduct of hydrogen fuel is water. Fuel cells are now used in “green” buildings, saving 50% of their energy. (Note: Fuel cell technology is still developing, and the goal is to manufacture fuel cells without using fossil fuels in the production! Solar energy is one way to go in the production of fuel cells.)
- ***Invest in a diverse market of renewable energy sources*** (as done in Sacramento, California).

Revisit your landscaping practices:

Plant deciduous trees in strategic locations around your home, including easement areas if permitted. The shade the trees cast can reduce your energy consumption. In addition to energy savings, another benefit is that trees store ("sequester") a certain amount of carbon during photosynthesis and can remove 50 pounds of carbon in a year. Trees alone can't solve nearly all our greenhouse gas problems, but they sure do help with shade and moisture, and they do take some of the excess CO₂ out of the atmosphere.

Design your yard for xeriscaping (plants that require little watering). Use a composting lawnmower. Composting yard waste on site reduces the waste stream sent to your community's landfill. Landfills generate a potent gas called "methane" that adds to global warming. (With the proper technologies installed, it's possible for landfill and industry gases to be captured and channeled to be re-used as fuel.)

Using a push mower instead of a power mower will reduce carbon dioxide emissions by 80 pounds per year. (Will build your muscles, too!)

Practice wise waste management:

- Recycle aluminum cans, glass bottles, plastic, cardboard, and newspapers. Recycling can reduce your home's carbon dioxide emissions by 850 pounds per year. Buy recycled products and encourage markets for recycled products.
- Aluminum cans are the best choice when buying beverages. They're by far the most efficient to recycle. It takes the same energy to recycle 100 aluminum cans as it does to create one new can, so recycle!
- Glass takes more energy than aluminum to recycle, but it's better than plastic.
- Plastic is not efficient in terms of recycling. Some of it gets recycled, but much of it doesn't, especially if it has a number above "2" on it. When it is recycled, plastic can only be made into something other than what it's already been. It might turn up in a plastic deck (a great alternative to old growth redwood!) or in a sweater, but much doesn't get recycled. Many items have excessive plastic packaging. Try to avoid buying these products, and if you can take the time, write to the company and tell them you're not buying their products because of the excessive plastic packaging. They'll listen!
- Buy food and other products with reusable or recyclable packaging, or reduced packaging, to save the energy required to manufacture new containers. This simple action could reduce your emissions by 230 pounds a year.

- Styrofoam is the most destructive for the planet, but often the cheapest in stores. If you make the choice to buy something that costs a few pennies more (like paper cups and plates), you're helping the environment.
- It's best to use regular flatware, but now you can buy biodegradable spoons, forks and knives for picnics and parties!

Rethink your transportation options:

- When running errands, combine trips so that you are not using your car for single-purpose trips.
- Give your car a break – consider transportation alternatives such as public transportation, bicycling or walking to work, bicycling or walking for errands. Push for more and better public transportation, including hybrid-electric buses.
- When you do drive, keep your car tuned up and its tires properly inflated to save on fuel costs.
- When buying a new vehicle, consider a fuel-smart car – one that gets more miles to the gallon than your current vehicle, and match the vehicle to your (real) needs (not what the car commercials tell you your needs are!). The potential carbon dioxide reduction for a car that gets 32 miles per gallon is 5,600 pounds per year.
- **Drive hybrid-electric cars** They cost about \$20,000. Tax credits are available. And stop driving/buying gas-guzzling SUVs!!
- **Demand higher fuel efficiency standards** – more miles per gallon – from the auto industry. We could have had this many years ago. The auto industry has been resisting it and has a lot of influence on the federal government. But SO DO WE, if we act with a strong public voice! Write to the companies and keep pressure on elected officials. If we all do it, things will begin to improve.
- Carpool - leaving your car at home just two days a week will reduce your carbon dioxide emissions by 1,590 pounds per year.
- Telecommute to work, consider "flexiplace" options.

Educate others. Let friends and family know about these practical, energy-saving steps they can take to save money while protecting the environment.

Pressure elected officials to adopt or exceed the goals of the Kyoto Protocol, the international treaty to reduce greenhouse gas emissions, signed by George Bush, Sr. in 1997, and ratified by the industrial nations of the world -- with the exception of the U.S. Many U.S. cities have adopted Kyoto targets, but we're way behind and need even stronger targets now. Communicate and work with elected officials on the state and local levels, and with city councils and school boards to establish and implement a plan for sustainable energy sources.

Tired of waiting for the federal government to take action on climate change, 38 states in the U.S. have now adopted their own action plans for reducing greenhouse gases! It's time for the federal government to get on board, commit to real targets and timetables for reducing greenhouse gas emissions by 70% if we're seriously going to curb the effects of global climate change.

Remember that every voice, every letter, and a cumulative pressure creates positive change. Any letter you write to a corporation counts as many more than just one letter!

Remember that there is a certain set of chemical conditions that allow for life. When human activity disrupts that natural balance, we disrupt the chemical conditions that support healthy human lives.

It's important for us to realize that we are all connected, all over the world, and to understand that what *we* do here in the U.S. affects everyone else. The waters of the world are all connected and so are we. The greenhouse gases we produce travel through the air and end up trapped in layers of ice in the poles! The interdependence between the Earth and humanity exists in more ways than we ever imagined. The Earth supports us as long as we support it.

Let's ask ourselves how we feel about ourselves and observe how we treat each other and the Earth. Let's ask ourselves what needs we're trying to fill with bigger cars, etc., and why we let advertisers tell us what we need, and that we need more, more, more. Let's get informed -- It's time to THINK FOR OURSELVES!!

The challenge of climate change gives us the opportunity to evolve as human beings, to stop thinking like cavemen, and adopt a new *long-term thinking* and *vision* for our lives that takes into account: (1) our health, (2) the health of others around the world, (3) the health of future generations, including our kids (4) economic effects of climate change, (5) economic advantages to using clean, renewable, sustainable fuels as our sources of energy.