Climate Change Solutions: What You can Do Right Now

Now it's your turn.

Here's our Top 10 list of actions for individuals, organizations and businesses to take as a first step in reducing your contribution to global warming. The time to act is now.

Project Switch: Change your light bulbs!

There are now highly efficient compact fluorescent light bulbs (CFLs) that last for years, use a third of the energy of regular bulbs and actually produce more light. Look for the government's ENERGY STAR label, which means the bulb has been tested for quality and efficiency. While each ENERGY STAR qualified bulb can cost more initially - anywhere from $4 to $15 a piece - remember that there are two price tags: what you pay at the register and what you pay in energy costs over the bulb's lifetime. You may pay more up front, but you will actually save hundreds of dollars in your household budget over the long term because of their long life. Five ENERGY STAR light bulbs will save your household at least $150 over their lifetime.

Here's the impact. If every household in the U.S. replaced a burned-out bulb with an energy-efficient, ENERGY STAR qualified compact fluorescent bulb, the cumulative effect is enormous. It would prevent greenhouse gas emissions equivalent to that from nearly 800,000 cars. It would also save enough energy to light 2.5 million homes for a year.

There are other, simple things with household lighting you can do to conserve. Turn off unneeded lights, dim lights when you can and bring natural sunlight into your home when it is feasible.

But changing those old light bulbs and replacing them with ENERGY STAR qualified compact fluorescents that can last seven years or more is by far the best thing you can do.

Drive your car differently – or drive a different car altogether!

The sad truth is that a gas guzzler emits as much CO2 as some homes! That's the bad news. The good news is that anything you can do to improve the fuel efficiency of your car will have an impact. On average, a passenger car emits 11,400 pounds of CO2 each year while a home emits 9,000 pounds of CO2 per person each year in the United States.

Horribly inefficient SUVs, minivans and pickup trucks now make up more than half of the cars on American roads. The real tragedy is that automakers could double the current average fuel efficiency of SUVs if they wanted. Even improving fuel economy from 20 miles-per-gallon to 25 miles-per-gallon would prevent 10 tons of CO2 from being released over a vehicle's lifetime.

Buying a fuel-efficient car (like a Hybrid) is wonderful. In fact, replacing your gas-guzzling car with a fuel-efficient one is by far the best thing you can do, out of all your choices. But not all of us can do that - at least, not right now. So, in the interim, there are things you can do with the car you drive now to conserve energy and be more fuel-efficient.

Drive less. Every year, Americans as a whole drive more miles than they did the year before. Stop this trend. Telecommuting and public transportation are great options. Leaving your car at home two days a week will reduce your CO2 emissions by 1,590 pounds a year. Even piling multiple errands into one trip helps and if you can walk instead of drive, even better.

Get your car tuned up. Just a simple tune-up often improves fuel efficiency. Studies have shown that a poorly tuned engine can increase fuel consumption by as much as 10-20 percent.

Slow down, don't race your car's engine, and watch your idling. All of these save on gas (saving you money) and have a big impact on burning gasoline. You can save gas by turning the engine off and restarting it again if you expect to idle for more than 30 seconds.

Your house – not too hot, not too cold!

The bad news is that about 42 percent of your household energy costs go toward just two things - heating and cooling. The good news is that means you have a lot of room to make a difference and even small changes can make dramatic improvements in household fuel efficiency.

Replacing older heating and cooling systems with new efficient models can cut your annual energy costs by 20 percent. So replacing the old with the new is a wonderful idea, but not very practical for most of us. Things you can do right now to make sure you're maintaining the right temperature in your house efficiently include:

Tune up your heating system. By keeping your furnace clean, lubricated and properly adjusted, you can save up to 5 percent in heating costs.

Clean vents, close unused vents, and change filters in the vents. Again, just these simple things will save you up to 5 percent in costs.

Buy a programmable thermostat, which can regulate different temperatures at different times of the day. And if you have one, use it! These thermostats reduce energy use by 5-30 percent and save you $100-$150 in energy costs each year.

If one in 10 households serviced heating and cooling systems annually, cleaned or replaced filters regularly, used a programmable thermostat and replaced old equipment with ENERGY STAR models it would prevent the emissions of more than 17 billion pounds of greenhouse gases.

Add two degrees to the AC thermostat in summer, and two degrees in winter. If everyone did this, the cumulative impact is significant.

Make sure windows and doors are sealed. Again, this will dramatically improve your household fuel efficiency. Sealing air leaks and adding insulation can reduce your annual energy bill by 10 percent.

Of course, if you can stand it, by far the best approach is to avoid using air conditioners. Ceiling fans use 80 percent less energy than central air conditioners. By only using ceiling fans you can reduce your annual cooling costs by 10-65 percent. In warm weather run the fan blades in a counter-clockwise direction to feel 5 degrees cooler. During the winter set the fan blades to rotate clockwise at a low speed to force warm air from the ceiling down into the living space.

Tame the refrigerator monster!

Did you know that your friendly refrigerator has a voracious energy appetite? It is the biggest consumer of electricity among household appliances and responsible for 10-15 percent of the electricity you use each year.

Older refrigerators, as a rule, are far less efficient than the newest ones - as much as 50 percent less efficient. But buying a brand-new, energy-efficient refrigerator is not always in the cards for most of us. Fortunately, other things will help.

Don't set the thermostat too high. Lowering the temperature even 1 degree will make a big difference.

If your refrigerator is near a heating vent, or always in the sun, then change the location, cover up the heating vent near it or cover the window.

Turn on your "energy saver" switch near the thermostat.

Clean the condenser coil. This one, very simple thing can improve the efficiency of your refrigerator reducing your annual energy costs by $20.

Get rid of your second refrigerator. If you don't need it, don't waste the energy.

Make sure the doors seal properly, and keep the cool in.

Twist the knobs on your other household appliances!

The other big users of energy in your household are your hot water heater, your washer and dryer, and your dishwasher. Each, in its own way, can be inefficient. Here are some things to try:

Either turn the hot water heater down to 120 degrees, or turn on the "energy conservation" setting. Some manufacturers set water heater thermostats at 140 degrees when most households only require them at 120 or 115 degrees. For each 10 degrees reduction in water temperature, you can save 3-5 percent in energy costs.

Buy insulation at a local store and insulate your hot water heater and pipes.

Install a timer on your water heater to turn off at night and on just before you wake up in the morning.

When possible, wash a few dishes by hand. Over time, that will save a few loads in the dishwasher, conserving energy.

Don't pre-rinse dishes. Today's detergents are powerful enough to do the job.

Wait until you have a full load to run the dishwasher.

Wash clothes in warm water, not hot. Ninety percent of the energy used in operating a washing machine goes toward heating the water that washes and rinses the clothes. The clothes will be just as clean, and you'll cut energy use.

Don't over-dry your clothes.

Green plants with less water, more trees to provide shade.

While it is true that planting more trees will help in the short term because they essentially soak up carbon, they also release carbon dioxide when they die. So it just postpones the problem. But there are other reasons to plant trees - as wind breaks to save energy, and as shade to lower cooling costs. And even the short-term help while we get our act together is a good thing.

As for plants, do everything you can in your yard and garden to create ways in which plants use less water. Choose hardier plants, plant things in groups that need more water and put in mulch to help keep moisture in. When you mow your grass, make sure you do it smartly - with sharp blades, and only when the grass needs cutting. Finally, make sure you water your lawn sparingly. All of these will conserve energy.

Buy Green Energy, and invest in green energy stocks.

Imagine if we ran out of fossil fuels tomorrow, what would we do? Well, we'd get our electricity from renewable energy, such as solar panels, geothermal and wind power sources. Many utilities now give consumers the option to buy "green power." Ask for it!

Learn the truth about nuclear power and natural gas as viable "green" options. They aren't. Radioactive waste will be a problem for tens of thousands of years into the future. Even though natural gas emits half as much CO2 as coal, it is still responsible for 20 percent of CO2 emissions in the United States while only providing us with around 23 percent of the energy consumed. Natural gas can help us make a transition, but it isn't the solution.

Finally, invest in green stocks and renewable energy companies through socially responsible funds. They perform just as well (if not better) than all of the unfiltered funds.

Go organic.

Even with our vast reservoir of scientific knowledge about farming, most American farmers still spray a billion pounds of pesticides to protect crops each year.

Now here's the kicker: when chemical pesticides are used to kill pests, they can also kill microorganisms that keep carbon contained in the soil. When the microorganisms are gone, the carbon is released into the atmosphere as CO2. And when those organisms are gone, the soil is no longer naturally fertile and chemical fertilizers become a necessity, not a luxury.

But besides going organic - thereby saving the carbon release from soil - there are other simple things you can do with food that will also make a difference:

Eat locally grown food. If the food doesn't have to travel far, there's less CO2 from the trucks that ship it.

Eat fruits and vegetables in season. Again, that saves the enormous transportation costs.

Plant your own vegetable garden. It's not as hard as you might think.

Buy recycled.

This may sound simple, but it takes less energy to manufacture a recycled product than a brand new one. So if you and every other consumer buy recycled products, you'll help create a market, and conserve energy along the way.

Because many manufacturers don't go out of their way to tout their recycled products, you should know that aluminum and tin cans, glass containers, and pulp cardboard have a fair amount of recycled content. So buy away!

Recycled products can often be considerably cheaper than non-recycled products. Most recycled paper products are of comparable quality and cost competitive with virgin paper products.

Finally, before you buy, check to see if the product or its packaging can be recycled. The recyclable logo (three arrows forming a triangle) is fairly common now.

Be a minimalist.

We know it's difficult, but in today's consumer economy, an easy way to conserve energy is to simply use - and buy -- less. Every time you buy something, energy has gone into getting that product to you. So the less you buy, the more you save energy-wise. It's a simple equation.

This last item on our Top Ten list may, in fact, be the single biggest way to make a dent in the global warming problem. Again, we know it sounds obvious, but buying less things - some of which you just don't need - changes the energy equation across the board, on every single consumer product. If everyone used less, the impact would be large indeed.

So how about some specific things? Here are a few:

Buy in bulk. In short, bulk items use less packaging, which translates into less energy.

Buy one of something, not 21 of something. You don't need 21 pairs of shoes, if one pair works just as well.

Go through your closet. Donate or recycle what you really don't need, then make a pledge not to replace everything you just got rid of.

Buy quality products that will last longer. Over time, you'll obviously buy fewer products that way.

Be creative in what you use for work, play and leisure. You don't always have to buy new products for activities. Re-use in creative ways.

Well, that's it - Earth Day Network's Top 10. As we said at the start, if just a third of us in the United States follow through on most of what's on this list, we can all collectively make a difference - and keep greenhouse gas emissions where they might otherwise be if the U.S. government stepped in and imposed mandatory CO2 caps and fuel-efficiency standards.

Sincerely,

Kathleen Rogers,

President, Earth Day Network