

YOUR PERSONAL SOLUTIONS TO CLIMATE CHANGE. SAVING YOUR MONEY, THE ECONOMY AND THE EARTH

By Alan S. Peterson, MD

Global climate change is a fact and it is harming our health. Americans' per capita (per person) average emissions of heat-trapping greenhouse gases is 21 tons --- That is 4 times the global average and twice that of other countries with a similar standard of living to our own, such as France and Japan. That means we can all make choices that will greatly reduce our global warming impact. To look for more specifics on how to shrink your carbon footprint go to www.carbonfootprint.com.

- 1) **Your electricity provider.** The most important is to change from your present fossil fuel (coal, oil, or gas) electricity provider to completely renewable – with 5 minutes on www.papowerswitch.com on the web. Multiple renewable sources are cheaper (and healthier for our climate) as listed on this site. You won't notice a change in how your electricity works. You still pay your bill to your present supplier (Ex. PP&L), but they contract with the renewable provider you choose. Choose the length of contract, etc. Telephone numbers are available for questions. We did this years ago and have been pleased. The electricity will come from regional wind and solar farms and not contribute to carbon dioxide or air pollution.
- 2) **The car you drive.** The next most important personal climate decision. When you buy your next car, look for the one with the best fuel economy in its class. Each gallon of gas you use is responsible for 25 pounds of heat-trapping gases in the atmosphere. Better gas mileage not only reduces global warming, but will also save you thousands of dollars at the pump over the life of the vehicle. Upgrading from a 20 mile per gallon car to a 40 mile per gallon car can save you 4,500 gallons of gasoline over the car's life span. At today's gas prices, that is a total savings of more than \$12,000!
- 3) **Make your house more airtight.** Even in reasonably tight homes, air leaks may account for 15-25% of the heat our furnaces generate in winter or that our homes gain in summer. If you pay \$1,100 a year to heat and cool your home, you might be wasting as much as \$275 annually. Take advantage of the free home energy audits offered by many utilities, which can help you identify and reduce the most significant air leaks.
- 4) **Invest with a conscience.** Responsible investing calls for good environmental stewardship. For the broadest and lowest cost exposure to this type of no-load funds, look at Vanguard's FTSE Social Index Fund and Northern Trust's Global Sustainability Index Fund. TIAA – CREF offers 4 low-cost, actively managed social funds, including a bond fund. Studies show indexes of "responsible" stocks perform at least as well as the total market over the long term.
- 5) **Buy and USE a programmable thermostat.** This can reduce your heating and cooling emissions by 15% and save you \$180 a year. During the summer, a setting of 78 degrees Fahrenheit is optimal during the hours you are at home, and 85 degrees when you are away during the day.
- 6) **Support a revenue neutral fee and dividend from the government.** All fees from extraction or importation of fossil fuels would go directly back to each US citizen, increasing renewable energy, the economy and jobs, and decreasing fossil fuel use. For more on this, go to citizensclimatelobby.org. There is a chapter in Lancaster. Contact Jerry Miller (jerry_miller@comcast.net) or myself.
- 7) **Eat less meat, especially beef.** Food accounts for a sizable portion of our greenhouse emissions. If you want to make cuts here, your best option is to reduce your consumption of meat, especially beef. That is because a pound of beef is responsible for some 18 times the emissions of a pound of pasta! An average family of 4 that decides to cut their meat intake in half could avoid roughly 3 tons of emissions

to the atmosphere annually. The US Advisory Panel on Dietary Guidelines recommends less meat to help our health also. I call this a "win-win" situation!

- 8) **Use power strips in your home office and home entertainment center.** These will curb "phantom loads" and save a surprising amount on your electric bill. Simply switch the strip off when not on use. Keeping your laser printer turned on, for example, when not in use, could be costing you as much as \$130 annually.
- 9) **Upgrade your refrigerator and air conditioner, especially if they are more than 5 years old.** New ones are twice as efficient or more. For refrigerators: If they are old, an upgrade can pay for itself in as little as 3 years in energy savings alone. Look for the Energy Label when you shop for a new refrigerator or any other appliance, especially freezers, furnaces, air conditioners, and water heaters, which use the most energy. These items may cost a bit more initially, but the energy savings will pay back the extra investment within a couple of years.
- 10) **Get an electricity monitor.** Identify where the energy "hogs" are in your home, which can help save hundreds of dollars annually. Electricity monitors can be found at most hardware stores. Some libraries may actually loan one out to you.
- 11) **Change those light bulbs.** New LED light bulbs can give the same light for 15% of the electricity. That adds up to more than \$100 in savings for most families each year.
- 12) **Wash clothes in cold water.** They get just as clean with today's detergents. But hot water uses 5 times the energy---and creates 5 times the emissions. This could save you nearly \$100 a year.
- 13) **Buy less stuff.** Reduce, re-use, and recycle---it is not just about pollution, but this strategy will lower your emissions too and help combat global change.
- 14) **Consider a ground water heat pump or a solar panel or even a windmill,** if it is appropriate and you don't like #1.
- 15) **Buying local** saves the transportation costs and emissions.
- 16) **Forget purchasing water in bottles.** Many times your water at home is safer and again saves the emissions for transportation and the production of the plastic. The plastic ends up filling our landfills. Just put your home water in a reusable clean container.
- 17) **Cut the shower time down.**
- 18) **Create idle free zones for automobiles in cities.**
- 19) **Take your cloth bags to market.**
- 20) **Recycle paper until you have used both sides.**

****You can take a tax credit for the cost of certain types of furnaces, water heaters, heat pumps and central air-conditioning systems, and 10% of the cost of energy-efficient windows, doors, insulation or roofs. Check to make sure these are now still a tax credit.**

The maximum lifetime credit for these types of items is \$500 combined, including any amount you have received since 2006, with limits for certain items running from \$50 to \$300. Some items must meet higher energy-efficiency standards than in the past (see www.energystar.gov).

You can get a credit worth 30% of the cost (including installation) of certain solar water heaters, solar panels, small wind turbines and geothermal heat pumps through 2019. Also see www.dsireusa.org for state and local tax breaks.