

# IT'S TIME TO MAKE EARTH DAY, EVERYDAY 24/7

Check out these top 9 ways to reduce your carbon footprint!

## But first a Global Warming 101...

A 'green' alarm is ringing and here's why – the world's scientists have been predicting for decades that our earth's atmosphere has increasing levels of carbon dioxide gas (CO<sub>2</sub>) which traps heat similar to the way a green house retains heat. This trapped heat has caused the earth's air temperature to rise about one degree, in turn causing glaciers to melt, sea levels to rise and really wacky and unpredictable weather.

The near panic among scientists is based on the distressing trend that from 1950 the world's yearly CO<sub>2</sub> output, or belch, has *tripled* from 1.6 billion tons to 6.5 billion tons in 2007. Pre-industrial 1800's atmosphere contained just **280** CO<sub>2</sub> parts per million (ppm) and now in 2009 it is **383** ppm.

The Intergovernmental Panel on Climate Change (the U.N. sponsored panel of 1,500 scientists) predicts that it will reach a minimum of **540** ppm by 2100 and that **450** ppm may be the tipping point where humans won't be able to limit drastic change. It's estimated for CO<sub>2</sub> to peak at **450** ppm, our current CO<sub>2</sub> output must drop by 80%!

Two other changes are very important. The earth's natural 'AC' units – the polar ice caps – are melting much faster than expected. And, with 25% of global warming due to deforestation (plants store carbon) forests are rapidly being chopped down.

The CO<sub>2</sub> in our air comes from transportation (33%), factories (29%), residential heat & electricity (21%) and office heat & electricity (17%). The U.S. contributes 24% of the world's CO<sub>2</sub>, China 14% and growing, and Russia, Japan and India at 5% each.

We all need to control the carbon monster – **and it starts at home.**

## STARTING POINT = THE AVERAGE MARYLAND HOUSEHOLD EMMITS 39,000 POUNDS OF CO<sub>2</sub> /YEAR

### #1 SWITCH TO GREEN POWER – Reduces CO<sub>2</sub> by 16,500 Pounds/Year

This is the "Mack Daddy" change and costs much less than you'd expect. BG&E consumers can switch to a green electric supplier offering 100% emission-free wind power. Visit [www.bge.com](http://www.bge.com), click on the "Energy Choices" button, and then click on "Choice-Residential Supplier List" for the three providers and details. Expect to sign-up for a fixed yearly rate and pay roughly a 2¢ kWh premium with the payoff that your home supports emission-free power. This means the average home would pay only \$375 more per year.

### #2 SWITCH YOUR CAR DOWN A SIZE OR TWO – Reduces CO<sub>2</sub> by 4,000 Pounds/Year

Heavy SUV's guzzle gas while smaller cars sip gas and hybrids use batteries for city driving and idling. Your next car purchase is very important – consider your gas mileage in the purchase. You can visit [www.terrapass.org](http://www.terrapass.org) to estimate your car's CO<sub>2</sub> output. While walking, car-pooling and driving less are the real goals, switching one of your cars down a size level or two has a real impact. And turn your car off if idling over ten seconds-it's better for your car, cuts CO<sub>2</sub> output and saves gas money.

AVERAGE CO<sub>2</sub> EMISSIONS BY CAR TYPE (source:terrapass.org)

Car Type	CO <sub>2</sub> Pounds/Year
SUV (ex: Suburban)	13,600
SUV hybrid (ex: Toyota Highlander)	9,000
Minivan (ex: Odyssey/Sienna)	10,500
Car (ex: Volvo)	9,500
Small Car (ex: Accord)	6,500
Hybrid Car (ex: Prius, Civic)	5,000

### **#3 REDUCE, REUSE, RECYCLE... A LOT – Reduces CO<sub>2</sub> by 2,400 Pounds/Year**

About half of each home's garbage is recyclable and curbside recycling is easy. Making plastic, steel, glass, paper and especially aluminum from scratch is energy-intensive as is the transportation of the raw and finished materials (usually global in scope). As energy costs soar and recyclables prices climb, municipal recycling incomes are growing – it's a win-win for the earth and the taxpayer. Also, landfills generate methane which is 20 times more potent than CO<sub>2</sub>. Consider trash-free lunches, using reusable containers, buying in bulk, and just buying less and composting your food and yard waste..

### **#4 RE-THINK USING HOT WATER – Reduces CO<sub>2</sub> by 2,000 Pounds/Year**

As much as 25% of your electricity bill is from heating water. Water heaters are always on standby and setting the temperature to 120° saves 500 lbs/year. Insulate your water heater with a "parka" and save another 1,000 lbs/year. When doing laundry, using warm or cold water saves 500+ lbs/year because 90% of the energy used is to heat the water. Other tips – buy front-loader washing machines which use 10 gallons of water versus 40+ gallons for top loaders, place unrinsed dishes into an Energy Star dishwasher and cut water usage by 50%, and use low flow showerheads to save another 350 lbs/year.

### **#5 TURN THE HEAT DOWN! – Reduces CO<sub>2</sub> by 2,000 Pounds/Year**

Turn down the heat 2 degrees less and cool 2 degrees higher to save carbon. For just \$35, install programmable thermostats and adjust heat to cooler at night, lower in the basement or off when on vacation. Replacing dirty air filters saves another 350 lbs/year because less energy is required to force the air to circulate. The biggie though, in both keeping heat in and in your pocket book, is great home insulation (did you know insulating your walls can be more effective than just your attic) and good double-paned windows. Tax credits exist for these larger home investments. This is just the beginning, check out [www.epa.org](http://www.epa.org) for many ideas to better contain heat.

### **#6 SWITCH 5 OF THOSE LIGHT BULBS! – Reduces CO<sub>2</sub> by 1,500 Pounds/Year**

Only 10% of the power used in light bulbs makes light with the rest wasted on heat. Compact fluorescent light bulbs (CFLs) are cheaper now, emit a better quality light, are available in any size (including recessed, dimmable and outdoor) and saves you money. Go to the dark side and be "Dark Vader" and turn off lights. It's amazingly simple and this action saves another 750 lbs in CO<sub>2</sub> and lowers your electricity bills.

### **#7 SLAY THE ELECTRONIC VOLTAGE VAMPIRE – Reduces CO<sub>2</sub> by 1,500 Pounds/Year**

Who knew that 'off' for electronics means standby or sleep mode and it's estimated that 5% of your electric bill pays for electronics switched 'off'. Utilize a power strip or low-tech timer to really turn off power with ease. The most costly phantom is your PC in sleep mode – turn it off when not in use and save 1,250 lbs in CO<sub>2</sub>/year. Better yet, enable your PC's Windows power management system under properties, screen saver tab, and then monitor power tab and enter the time limits for your monitor and hard-drive to shut down.

### **#8 GO ON A DIET "DIET" – EAT LOCAL, AT HOME AND ORGANIC – Reduces CO<sub>2</sub> by 1,500 Pounds/Year**

The average U.S. meal travels 1,200 miles from farm to plate. Local food means less transportation CO<sub>2</sub> and organic foods are grown with earth-friendly practices. Beef is the big offender due to high water and energy use and a lot of 'methane' output – so choose grass-fed and organic meat. Learn about buying seasonal, local and often organic produce through Community Supported Agricultural farms (CSA) and tour local farmer's markets. And, when you eat at home, you save lots of cash, and choose how your waste is handled.

### **#9 BUY CARBON OFFSETS – A Lot More CO<sub>2</sub> Pounds Saved**

Consumers and businesses can now buy carbon offset other household, travel or business carbon emissions. This new concept is unregulated, yet there are credible non-profits investing in additional green projects such as alternative energies and tree planting (trees absorb carbon). Check out: [www.terrapass.org](http://www.terrapass.org) or

[www.climatetrust.org](http://www.climatetrust.org) to name a few. Though carbon credits don't reduce your emissions, the idea supports green thinking, green investment and cleaner air.