

Dear All,

As you know global warming is endangering the future of life on the planet. It will also affect us; rising sea levels, dwindling water supplies, mass deaths due to heat waves, stoppage of the gulfstream, which brings milder climate to north of Europe, super hurricanes, less food due to droughts are some of the effects.

As you also know global warming is produced due to CO2 emissions coming from burning of fossil fuels. So what can every single person do to reduce global warming ?

1) Insulation: Do you know that you can save 50% of heating energy (and money) by insulation ? Especially in the times the financial crisis, you can make the insulation cheaper and save the money when oil, natural gas and coal prices are higher due to higher demand. What needs to be insulated ? Firstly the Roof, since warmer air goes up, then the windows (triple glass or at least dual glass and shutters for additional insulation at night, and in summer time), then the outer walls. Also small cracks, leaks in weatherstrips etc should be eliminated. An infrared inspection of your house for heat losses would be the best way to find out what else can be done. A wintergarden will help heating your house additionally in winter time.

2) Using rechargeable batteries instead of alkaline batteries, and charge them during less demand ours like at night will also save a lot of energy and money.

3) Lightning; the use of Compact fluorescent lamps instead of traditionl light bulbs will save 80% of energy, the use of very new LED lamps will save even more.

4) Buying local. Most of the energy is spent for transportation of imported goods, especially food. By buying local made food you not only save a lot of energy, but also create more jobs at home.

5) Heating; there are several way to save energy and money by changing the heating method; you can use the free heat of the nature by adding a solar thermal equipment to heat the water for taking showers and also to heat your home. Additionally you can use a heating pump, which

functions like a reverse fridge; it takes the heat of the outside and transfers it to your home. You use much much less energy to do this (electricity to pump a liquid).

6) Your car; by buying a hybrid car you save 30% of fuel, by converting your car to CNG (compressed natural gas) you can save a lot of CO₂, since CNG has much less carbon but more hydrogen, which will result in water (CH₄ instead of C₈H₁₈). CNG will also result in much more energy output per mass. The conversion is not very expensive. It is totally safe, since the storage has to resist a certain pressure.

Of course there are also other smaller things you have to consider:

- Each 60 pounds increases fuel consumption by 10%.
- Aggressive driving (speeding, rapid acceleration, and hard braking) wastes gas. It can lower your highway gas mileage 33% and city mileage 5%.
- Drive at lowest and constant rpms; 2000 rpm are enough; you can save up to 30%. Even a Porsche can be driven at the 4th gear at 20 mph and at the 6th gear at 50 mph with 2.5 times less fuel consumption.
- Avoid high speeds. Driving 75 mph, rather than 65 mph, could cut your fuel economy by 15%.
- Use air conditioning only when necessary
- Keep tires properly inflated and aligned to improve your gasoline mileage by around 3.3%.
- Replace clogged air filters to improve gas mileage by as much as 10% and protect your engine
- Combine errands into one trip. Several short trips, each one taken from a cold start, can use twice as much fuel as one trip covering the same distance when the engine is warm. Do not forget that in the first mile your car uses 8 times more fuel, in the second mile 4 times and only after the fourth mile it becomes normal

7) Buying A++ or A+++ equipments. The extra money you pay for this will be back in 1-2 years. It will save a lot of CO₂.

8) Try to save also energy at your job; you can do it by insulation, more efficient processes, heat recovery, more efficient pumps/engines, low temperature processes, material saving, water savings, optimization, automatic turning off of unnecessary energy using processes, control if some processes are really necessary (the change of some processes makes other processes sometimes unnecessary on which nobody has thought about).

9) Solar cells for your own home; at the moment solar cells are very cheap since there is an overproduction.

These cells can operate a fridge for example.

Regards.
