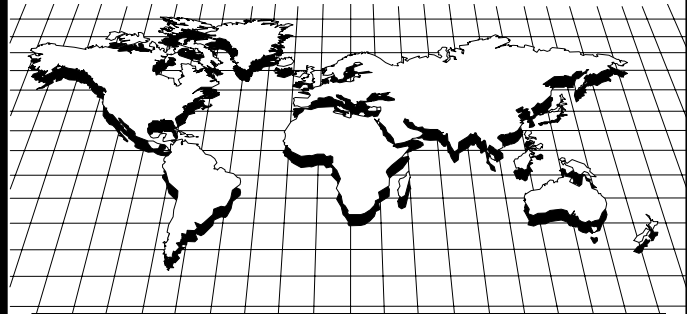


# PERSONAL/FAMILY SAVINGS ACCOUNT

## CO2 Reduction Worksheet

The worksheet will help you to calculate your energy savings. Together we can reduce harmful greenhouse gas emissions and energy waste.



Maine Interfaith Climate Change Initiative  
for Faith Communities

*"Cool Our Planet Pledge Drive"*

Presented by the Maine Council of Churches



⇒ **Kyoto Goal:** 1500 pounds per person in direct savings

⇒ **Personal/Family Savings Pledge:** \_\_\_\_\_ pounds of CO2 emissions saved. Calculate your savings pledge by multiplying the number of people in your household committed to the pledge by 1500 pounds. For example, a couple could meet the Kyoto Protocol goal by reducing their CO2 emissions by 3000 pounds (2 people x 1500 pounds.)

⇒ **Personal/Family Projected Savings:** To help save the planet from global warming, I/we intend to send \_\_\_\_\_ (Grand total from CO2 reduction worksheet) pounds less carbon dioxide into the atmosphere this and subsequent years. We'll do it by taking the energy-saving steps we've checked below - our Family Savings Plan.

⇒ Please remember to transfer these figures to the actual pledge form to be returned to the Maine Council of Churches! Thank you!



⇒ If we work together, and take time to measure our progress, we will individually and collectively achieve our minimum goal of compliance with the 1990 CO2 level-7% reduction necessary to meet the Kyoto Protocol goals. The additional benefit in most cases is an actual monetary savings from the use of less energy. Please begin today and remember to continue with as many reductions as possible into the indefinite future!

⇒ Give yourself credit for those savings you have instituted since 1990 and continue to practice, as you are already yielding reductions from the average Maine per capita CO2 emissions.



# Personal/Family Savings Account CO2 Reduction Worksheet Page 2

## ⇒ 1. ELECTRICITY SIMPLICITY\*

Hint: If available, purchase Green Power for your home's electricity from your utility. Green Power is electricity that is generated from renewable sources such as solar, wind, hydro, geothermal, or biomass including wood and trash-to-energy plants. Although the costs may be slightly higher, you'll know you are buying power from an environmentally friendly source. (See information on Maine Interfaith Power & Light Company, a green power purchasing group, at [www.maineCouncilofchurches.org](http://www.maineCouncilofchurches.org)).

- a. Replace a 100-watt incandescent bulb with a 27-watt compact fluorescent bulb...  
SAVE 160 pounds per bulb \_\_\_\_\_
- b. Replace a 75-watt incandescent bulb with an 18-watt compact fluorescent bulb...  
SAVE 120 pounds per bulb \_\_\_\_\_
- c. Lights out when we leave a room...  
SAVE 120 pounds per room \_\_\_\_\_

[1. Subtotal CO 2 saved: \_\_\_\_\_]

## ⇒ 2. HOT WATER USEAGE

- a. Give our water heater a warm-up jacket of insulation to make it more efficient..... We use:  
(Electric) SAVE 660 pounds \_\_\_\_\_  
(Oil) SAVE 360 pounds \_\_\_\_\_  
(Gas) SAVE 260 pounds \_\_\_\_\_
- b. Cool the hot-water heater down by 10 degrees (but not below 120 degrees Fahrenheit)...  
(Electric) SAVE 660 pounds \_\_\_\_\_  
(Oil) SAVE 400 pounds \_\_\_\_\_  
(Gas) SAVE 290 pounds \_\_\_\_\_
- c. Chill out our washing machine by doing four out of five laundry loads in cold water...  
(Electric) SAVE 460 pounds \_\_\_\_\_  
(Oil) SAVE 280 pounds \_\_\_\_\_  
(Gas) SAVE 200 pounds \_\_\_\_\_
- d. Make our hot water go further with low-flow showerheads...  
(Electric) SAVE 920 pounds \_\_\_\_\_  
(Oil) SAVE 560 pounds \_\_\_\_\_  
(Gas) SAVE 400 pounds \_\_\_\_\_

*(cont. on next page)*



## Personal/Family Savings Account CO<sub>2</sub> Reduction Worksheet Page 3

- e. Install a solar thermal system to help provide hot water...  
SAVE 720 pounds \_\_\_\_\_
- [2. Subtotal CO<sub>2</sub> saved: \_\_\_\_\_]

### ⇒ 3. HOME APPLIANCES

Hints: When replacing your old appliances look for the Energy Star label to help reduce energy consumption by up to 40%.

- a. Turn the old refrigerator in for a new high-efficiency model  
SAVE 220 pounds \_\_\_\_\_
- b. Run your dishwasher only with a full load. Use the energy-saving setting to dry dishes. Don't use heat when drying.  
SAVE 200 pounds \_\_\_\_\_
- c. Wash clothes in warm or cold water, not hot.  
SAVE up to 500 pounds(for two loads a week) \_\_\_\_\_
- d. A washing machine that uses energy and water efficiently will reduce CO<sub>2</sub> emissions  
SAVE 440 pounds \_\_\_\_\_
- [3. Subtotal CO<sub>2</sub> saved: \_\_\_\_\_]

### ⇒ 4. HOME HEATING AND COOLING

Hint: Ask your utility company for a home energy audit to find out where your home is poorly insulated or energy-inefficient. Carbon dioxide reduction: Potentially, thousands of pounds a year.

- a. If you need to replace your windows, install the best energy-saving models.  
SAVE up to 10,000 pounds a year \_\_\_\_\_
- b. Consider going back to using some wood to heat your home. Replace the woodstove with one that has a catalytic converter and reduce your use of oil or other fuels. Use of renewable energy sources such as wood do not add any net CO<sub>2</sub>-other than that due to harvesting, processing and transportation energy use- providing the harvest areas are managed to provide continual re-growth which sequesters CO<sub>2</sub>.  
*(cont. on next pg.)*



## Personal/Family Savings Account CO2 Reduction Worksheet Page 4

For every 100 gallons of oil saved  
SAVE 2,200 pounds\_\_\_\_\_

For every 100 gallons of bottled gas saved  
SAVE 1,300 pounds\_\_\_\_\_

- c. Nudge the thermostat down one degree this winter...  
(Electric) SAVE 410 pounds\_\_\_\_\_  
(Oil) SAVE 250 pounds\_\_\_\_\_  
(Gas) SAVE 180 pounds\_\_\_\_\_
- d. Give that overworked heating system a 10-degree rest when we're in bed at night...  
Electric) SAVE 2,070 pounds\_\_\_\_\_  
(Oil) SAVE 1,260 pounds\_\_\_\_\_  
(Gas) SAVE 900 pounds\_\_\_\_\_
- e. Turn the air conditioner's thermostat up a single degree....  
SAVE 220 pounds\_\_\_\_\_
- f. Get an annual tune-up. Replace filters as recommended. Save 5% of energy used.  
Air Conditioner: SAVE 220 pounds\_\_\_\_\_  
Furnace:  
(Electric) SAVE 1,030 pounds\_\_\_\_\_  
(Oil) SAVE 640 pounds\_\_\_\_\_  
(Gas) SAVE 450 pounds\_\_\_\_\_
- g. Caulk or plug up leaks around windows and doors with weather-stripping and close the curtains and shades at night.  
(Electric) SAVE 1,600 pounds\_\_\_\_\_  
(Oil) SAVE 1000 pounds\_\_\_\_\_  
(Gas) SAVE 700 pounds\_\_\_\_\_
- h. Insulate your walls and ceilings; this can save about 25% of home heating bills.  
SAVE up to 2000 pounds\_\_\_\_\_

[4. Subtotal CO 2 saved:\_\_\_\_\_]

*(cont. on next page)*



## Personal/Family Savings Account CO<sub>2</sub> Reduction Worksheet Page 5

### ⇒ 5. GETTING AROUND\*

Hint: If your car has an air conditioner, make sure its coolant is recycled whenever you have it serviced. These gases are much more active than CO<sub>2</sub> in terms of greenhouse gas effects. Save thousands of pounds of emissions.

- a. Whenever possible, walk, bike, carpool or use mass transit.  
For every gallon of gasoline saved... SAVE 26 pounds \_\_\_\_\_
- b. Trade in the gas-guzzler for a fuel-efficient car  
one that gets five miles more per gallon... SAVE 2,000 pounds \_\_\_\_\_  
one that gets 10 miles more per gallon... SAVE 4,000 pounds \_\_\_\_\_
- c. Carpool; leaving your car at home two days a week.  
SAVE 1,590 pounds \_\_\_\_\_
- d. Treat the car to a tune-up once a year.  
SAVE 900 pounds \_\_\_\_\_
- e. Combine car errands into one fuel-saving trip.  
SAVE 500 pounds \_\_\_\_\_
- f. Keep our car tires properly inflated.  
SAVE 250 pounds \_\_\_\_\_
- g. Flying produces about 0.9 pounds of CO<sub>2</sub> per person per mile, whereas mass transit produces about 0.5 pounds per person per mile. When possible for shorter trips (500 miles or less), consider using the bus or train. (Pounds of CO<sub>2</sub> saved equals 0.4 lbs. per mile X \_\_\_\_\_ number of miles,  
SAVE \_\_\_\_\_

[5. CO<sub>2</sub> Subtotal saved: \_\_\_\_\_]

*(cont. on next page)*



## Personal/Family Savings Account CO2 Reduction Worksheet Page 6

### ⇒ 6. REDUCE, REUSE, RECYCLE

Hint: Reduce waste; buy minimally packaged goods; choose reusable products over disposable ones; recycle.

- a. Recycle aluminum cans, glass bottles, metal cans, plastics, cardboard, and newspapers. Recycling 25% of your garbage can reduce your home's CO2 emissions by at least 850 lbs. per year.  
For 25% recycling SAVE 850 pounds \_\_\_\_\_

Or (but not both), itemize your recycling savings:

- b. Recycle one aluminum can a day...  
SAVE 140 pounds \_\_\_\_\_
- c. Recycle one glass bottle a day...  
SAVE 100 pounds \_\_\_\_\_
- d. Recycle one newspaper a day...  
SAVE 50 pounds \_\_\_\_\_

[6. Subtotal CO2 saved \_\_\_\_\_]

### ⇒ 7. IN THE YARD

Hint: Plant trees next to your home and paint your home a light color if you live in a warm climate, or a dark color in a cold climate.

- a. Use a push mower instead of a power mower.  
SAVE 80 pounds \_\_\_\_\_
- b. Plant a tree on the south or west side of our home to provide cooling shade...  
SAVE 150 pounds \_\_\_\_\_

[7. CO 2 Subtotal saved \_\_\_\_\_]

*(cont. on next page)*



# Personal/Family Savings Account CO<sub>2</sub> Reduction Worksheet Page 7

## ⇒ 8. SCHOOLS, BUSINESSES, AND COMMUNITIES

Hints:

- Reduce waste and promote energy-efficient measures at your school or workplace.
  - Ensure that office equipment is turned off each night. A computer and monitor can each use 200 watts per hour.
- a. Work at your business or in your community to set up recycling programs.  
For every pound of office paper recycled... SAVE 4 pounds \_\_\_\_\_
- b. Replace some business travel with video conferencing. For example, with short air trips, roughly 88 lbs. of CO<sub>2</sub> are emitted for each 100 miles of travel by one person. The emissions associated with videoconferencing are estimated to be less than 1 % of those from air travel. Use video conference in lieu of air travel one time for 500 mile distance. SAVE 880 pounds \_\_\_\_\_
- c. If your job allows, work at home one day a week and save 26 lbs. CO<sub>2</sub> for each gallon of gasoline not used in transportation. Save \_\_\_\_\_ gallons per week X number of weeks  
SAVE \_\_\_\_\_ pounds.
- [8. CO<sub>2</sub> Saved Subtotal \_\_\_\_\_]

## ⇒ 9. FOOD CONSUMPTION

Hints:

- a. • Replace meat with vegetarian entrees at several meals each week. Meat production/factory farming is considered by the Union of Concerned Scientists to be one of the major contributors to global warming. (No greenhouse gas emissions savings figures were available at this time.)
- b. • Buy organic produce. Food production using other methods requires petrochemical-based fertilizers and highly mechanized and fossil-fuel powered technology.
- c. • Buy locally produced food which requires minimal transportation.

*(cont. on next page)*



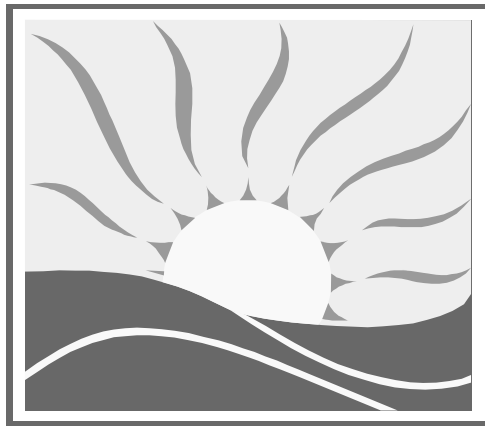
## Personal/Family Savings Account CO2 Reduction Worksheet Page 8

### ⇒ 10. LEGISLATIVE ADVOCACY

Be informed about environmental issues. Keep track of candidates' voting records and write or call to express concerns.

Educate others and become an advocate for change in regards to lowering our energy consumption and wastefulness as a culture. Remember, you are only affecting one-third of the reductions necessary per person in order for us to meet the Kyoto -7%/1990 CO2 reduction goal. The other two-thirds of the energy saving, efficiency increases must be made up through changes in the way business, industry, public transportation, government and the military use energy and generate waste.

Carbon dioxide reduction (if we vote to raise U.S. auto fuel efficiency standards-CAFE), we would save billions of pounds nationally!



GRAND TOTAL of CO2 SAVED (Add subtotals for 1-8): \_\_\_\_\_

*Transfer total to top of CO2 Reduction Worksheet and to the Pledge Form which will be returned to the Maine Council of Churches. Thank you)*

**\*NOTE:** These categories represent the areas (transportation, electricity use) where highest CO2 savings can be made by the individual or family living in Maine.

Sources for information: USEPA, Environmental Defense Fund, Children's Earth Fund, National Audubon Society, Co-Op America Quarterly.