

Green Tips

GREENING OUR FAITH

*explores the wonder of our world,
addressing our roles as citizens and
people of faith as we wrestle with
potential global climate change*



ST. PHILIP'S
IN THE HILLS
EPISCOPAL CHURCH

...A STRONG
AND LOVING
COMMUNITY THAT
WELCOMES,
ENCOURAGES, AND
EMPOWERS ALL
TO GROW IN CHRIST
AND TO DO
GOD'S WORK
IN THE WORLD

Recycle old newspapers in several ways: use as packaging material instead of styrofoam peanuts or bubble wrap; use as wrapping paper for gifts; add shredded newspapers to your compost heap. Stuff in your shoes to keep their shape; create new soil by covering several layers of newspapers with mulch, watering and allowing time to break down into earth.

Cost: Free

Recycle your old computer (and other electronics).

Old computers contain lead, gold, copper, mercury, and other hazardous chemicals. Drop off your old computer at Rise Equipment Recycling Center (formerly Pima Computer Recycling) at 1134 S. Park Ave. They will refurbish and resell it, or take it apart and use the components. Your donation may be eligible for a tax write-off. They take other electronics but charge \$15 to take a TV. World Care at 3538 E. Ellington Place takes electronics also and charges 25 cents/lb for a nonworking TV. Los Reales Landfill (5300 E. Los Reales Road) takes computers and electronics with a charge for televisions. Snowbirds for home sites: Google 'Recycle electronics'.

Cost: Free, except for some televisions

Recycle packing peanuts: Most local pack-and-ship stores may accept these for reuse: PakMail on Oracle and Fort Lowell do, as well as Postnet on Campbell. For Snowbirds at home call 1-800-828-2214 for your local drop-off site.

Recycle batteries: Many Verizon, Radio Shacks and Home Depot stores take them. Call to locate one nearest you.

Hazardous waste disposal sites and times: 2440 W Sweetwater Drive each Friday and Saturday from 8 am to noon; Eastside City Hall, 7575 E Speedway and Tucson Water Plant 2, 1102 W. Irvington Road from 8 am to noon the first Saturday of each month. The following are accepted: automotive fluids, engine oil filters, auto batteries, rechargeable batteries, button and lithium batteries, cleaning products, drain openers, cooking oil, products containing mercury, fluorescent lamps, paint products, solvents, hobby chemicals, propane cylinders, computer equipment.

Turn down your water heater thermostat (130 degrees if you use a dishwasher; otherwise, 120 degrees is hot enough). For every 10 degree decrease, you will reduce carbon dioxide by 500 pounds a year

Cost: Free

Say "No" to paper receipts from ATMs and gas pumps. You will have permanent records on your monthly bank and credit card statements, and you will avoid all those small slips of paper to keep track

Cost: Free

Use the cold/cold cycle on your washing machine instead of the hot/hot cycle. There are several detergents on the market especially for cold water. You'll save up to 90% in energy used. If everyone in the US did this, it would save 100,000 barrels of oil a day.

Cost: Free

Reduce "phantom load" electricity by turning appliances all the way off. TVs and VCRs alone waste \$1 billion in lost electricity in the US. Each computer emits about 140 pounds of carbon dioxide a year; the screen saver uses as much energy as a spreadsheet program. Most of our electronic appliances with a clock, digital timer, remote control, or standby mode rely on these phantom loads, with cell phone chargers, electric shavers, and microwaves being prime examples. Plug as many of your electronics as possible into a power strip, then turn the strip off when they are not in use.

Cost: Free

Pump up your tires every month to the amount recommended for your car. The average American who drives 12,000 miles a year could save about 16 gallons of gas annually and increase gas mileage by 3 percent.

Cost: Free

Adjust your flying habits: fly direct whenever possible (takeoff can consume 25% of the total fuel on short flights). The most fuel-efficient flight length is 2,700 miles, but even that produces one ton of carbon dioxide emission per passenger per flight. For flights less than 600 miles, consider taking a bus, train, or car.

Cost: Free

Do your banking and bill-paying online and save money on postage and gasoline. This will also reduce the amount of paper winding up in our landfills. If every US home received and paid its bills online, annual greenhouse gas emissions would drop by 2.1 tons. You can arrange individual bill payments at each company's website or centralize the process by setting up online bill payment at your bank.

Cost: Free

Recycle your old cell phones, PDAs and accessories: a million recycled could power over 185 homes/year. Most providers recycle if you take them in. Recycling can benefit charities. Examples: AT&T goes to Cell Phones for Soldiers; Verizon—domestic violence shelters; Best Buy—Boys and Girls Cubs of America; Pima County Council on Aging—reusables for 911 calls by seniors (leave at PCOA at 8467 E Broadway, 790-0504); Red Cross—both domestic violence victims and Red Cross (contact 318-6740 or www.redcrossarizona.org). Protect your privacy by erasing stored information. For instructions, contact your provider, check your instruction manual or manufacturer's website. More recycling information: <http://epa.gov/waste/partnerships/plugin/cellphone/index.htm>.

Cost: Free

Use natural products from your kitchen instead of poisons to control pests. For example, spread coffee grounds around your foundation to repel ants. Soak cloth in cider vinegar and stuff down a nest hole to drive out pack rats.

Cost: Free

Pump gasoline in the early morning or after dark, when gasoline is densest and there is less evaporation. Fill up when your tank is half-empty; gasoline evaporates rapidly if there is more air in the tank. Finally, set the trigger at the pump nozzle to the low setting, minimizing vapors created while pumping.

Cost: Free

Reduce your car's gasoline costs and carbon dioxide emissions by 14% without the trouble of buying a new automobile by committing to one day a week without using your car. Use the bus, walk, carpool, or bike if you must go out; stay home if you can. This will require some initial planning, but may soon become a welcome habit.

Cost: Free

Don't pay for energy you're not using. When you are the last to leave a room in your house, turn off the lights and the phantom load appliances. If you don't use a room, block it off and stop heating or cooling it. If you will be out of the house for a few hours, turn down the heat or turn up the AC a couple of degrees.

Cost: Free

Do an energy audit of your home to find ways to save on fuel costs and reduce CO2 emissions. You will find

help at www.energysavers.gov and www.tucsonelectric.com/Green/EnergyAdvisor/.

Cost: Free

Toys for Children. Watch out for lead as usual; plastic recyclable and may contain PVC which emits toxic fumes when scratched or burned. Look for the label, "PVC-free". Try to find toys made of wood or fabric; avoid toys requiring batteries which are energy intensive and can leak toxins when trashed. A set of rechargeable batteries and a charger (ideally solar) will run any "must-have" items.

Bring your own reusable bag or tote to the supermarket. The average American family of four uses 1,500 plastic sacks in a year, and each sack can take up to 1,000 years to decompose. Your own bag made of canvas, cotton or nylon is sturdier than plastic, it holds more, and it's reusable.

Where: home; Several local supermarkets sell cotton totes with their printed logos.

Cost: Free or \$1.50 up

Put your outdoor lights on a timer so they will automatically switch off at a pre-set time. Or invest in solar yard lights.

Where: at home supply stores for solar

Cost: Free or \$13–25 (solar)

Increase the number of your houseplants and decrease the carbon dioxide in your home. Houseplants can also help remove toxins from the air. Spider plants and peace lilies are effective for removing carbon monoxide; ficus and aloe vera remove formaldehyde often found in adhesives and furnishings. Living greenery can boost your spirits and feelings of connection to the natural world.

NOTE: If you have pets, make sure the plants you choose are non-toxic to them.

Where: nurseries, supermarkets

Cost: \$1.50 and up

Adopt Green Watts on your electric bill. This is a voluntary program — you agree to an extra charge on your monthly electric bill (\$2 to \$8) to purchase a specific number of Green Watts. Tucson Electric Power agrees to reduce fossil fuels by that amount, replacing fossil fuel energy with renewable energy from the sun, wind, and landfill gas sources.

Cost: \$2 for one Green Watt (20 kwh)

How to sign up: Call Tucson Electric Power at 520-623-7711

or go online: www.greenwatts.com/pages/signup

Buy locally produced food to reduce the amount of energy used for transportation. Most items in our supermarkets have traveled an average of 1,000 miles. Fresh local food can be found almost every day at any of Tucson's 12 local farmers' markets. Where St. Philip's Plaza farmers' market, Saturdays and Sundays; Plaza Palomino at Swan and Ft. Lowell on Saturday mornings. Locations and times of farmers markets are listed in Thursday's *Arizona Daily Star* Caliente Section and the *Tucson Weekly*.

Install a low-flow shower head with pause feature to use while scrubbing then reactivate for rinsing. A 6-minute shower uses 24 gallons for a regular shower. Cut shower time by one minute and you can save 500 gallons of water per year.

Cost: \$7 and up

Where: home improvement stores

Plant a tree. Cut heating and AC costs 10%–15%. Each tree can absorb one ton of carbon dioxide over its lifetime, as well as providing shade. Residents within the Tucson Electric Power Company district can get two trees delivered to their home. Varieties include mesquite, desert willow, willow acacia, and blue palo verde.

Cost: \$8.00 each

How to order: download an application form at www.tucsonaz.gov/tcb/tft/ or call the Trees for Tucson office at 250-8228 or 791-3100.

Buy compact fluorescent light bulbs (CFLs). These are energy efficient and each bulb saves about 100 pounds of carbon dioxide emissions a year. They come in an array of sizes and shapes.

Cost: \$3.00 and up.

Where: home improvement stores

Sun Lighting (4545 E. Broadway; Mon–Fri.) offers a light bulb buyback. Bring in your old bulbs—working or not—and the store will give you full credit toward new fluorescent bulbs. The store will give you credit, old bulb for new bulb, for as many CFLs as you purchase.

NOTE: CFLs contain mercury and must be handled as hazardous waste; take them to the above store for your convenience and safety. If a bulb breaks, leave the room for 15 minutes; double bag the white powder that is swept up; if a vacuum cleaner is used, remove the bag and double bag, then take bags to hazardous waste site.

Wrap your hot water heater in an insulated blanket.

This will reduce your emissions by an additional 1,000 pounds a year and save on your utility bill. Blanket installations kits are available at home improvement stores and easy to use.

Cost: \$18 and up

Where: Home improvement stores

Use LED lights for your Christmas tree rather than incandescent bulbs. Carbon dioxide emissions will be reduced by 122 pounds a season. Replace outdoor lights with LED lights for even more savings. Using 10 strings of LED lights per season reduce carbon dioxide emissions by 2,300 pounds annually.

Bottled water, often consisting of tap water, has become one of our largest landfill headaches. Worldwide, 41 billion gallons/year are consumed, wasting fuel for bottling, transport and producing carbon dioxide emissions.

Solution: Tucson water is safe. If you don't like the taste, use many of the available water filters and use a permanent water bottle to carry your water. Be sure the bottle is free of BPA and PVC. These bottles are durable, portable, washable, reusable, and do not absorb odors or chemicals.

Cost: \$1.59 and up

Where: supermarkets and sports stores

A programmable thermostat will keep your home at the correct temperature all year. Every 2 degrees Fahrenheit that you lower your thermostat in the winter (or raise it in the summer for air conditioning) can save 4% on energy bills. This will also save more than one-third of a ton of carbon dioxide emissions per year.

Cost: \$33 to \$80

Where: home improvement stores

Upgrading your TV? Be aware of the difference in energy consumption in the newer models. A 42" plasma screen consumes up to 400 watts of electricity. LCDs use about 200 watts. Your old TV, if it is a 27" cathode ray tube, uses only 100 watts.

Replace appliances/electronics with those labeled ENERGY*; any appliance over 10 years old should be replaced with Energy * equipment.

Use your microwave to cook whenever possible. It's the most energy-efficient way to heat food. Each time you use your microwave instead of your conventional oven, you'll be using up to 80% less energy.

Install low flush toilets. Tucson Water is offering rebates on very low flush toilets which use only 1.2 gallons of water and for any toilet older than 20 years. Check if you have a 'clunker' and go to www.tucsonaz.gov/water/rebate for information and an application, or call 791-4331.

Install remote hot water system. The Metland™ D'Mand system is designed to move hot water to your most remote fixture on demand within seconds. Save gallons of water, otherwise wasted while you wait for the hot water to arrive at the faucet.
Cost: \$300 (if you install it yourself) –\$800
Where: Most solar companies install them

Install tankless hot water heater. Electronic D'MAND™ pumping technology replaces the necessity of keeping 50 gallons of water hot all the time.
Cost: \$1300–\$1600 (less \$300 federal tax credit)
Where: Most solar companies install them

Install Solar hot water system. Uses solar energy to heat hot water .
Cost: About \$5000 (less federal tax relief \$1455 and state tax relief \$1000)
Where: Most solar companies install them

Install photovoltaic solar system. Tied to utility grid: get true net metering. When sun isn't shining the grid kicks in.
Cost: \$7–\$9/watt (less Tucson Electric Power rebate of \$3/watt; Federal and State Tax credits)
Where: to get a list of solar vendors contact TEP to get SunShare information (phone: 745-3100 or tep.com) or contact Green Team.

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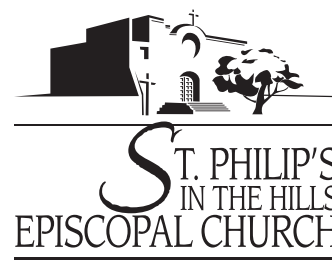
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