Reducing Your Carbon Footprint at Home

In the 1950s, the all-electric home was the "home of the future." With the development of nuclear power plants and an expanding network of hydroelectric dams came the promise of electricity "too cheap to meter"! That didn't happen. Electricity couldn't compete with the efficiency of natural gas.

Today, energy-efficient all-electric homes are once again touted as the homes of the future, this time to combat global warming. More than half of the homes in the United States, however, still rely on gas-fueled furnaces, water heaters, or stoves. The transition to high-efficiency electrical appliances such as heat pumps, heat pump-water heaters or induction stoves will not happen quickly, but an all-electric future is coming.

Though the burning of natural gas and coal currently supplies more than 80% of the electricity Americans use, we are steadily weaning ourselves away from this "dirty electricity," Many homeowners are installing roof-top solar panels or wind turbines. Increasingly, commercial solar and wind farms are making major contributions to America's electric grid.

Switching to electrical appliances will reduce our carbon footprint, but we shouldn't think that is all we need to do. Until clean, renewable fuels supply *all* our electricity, we need to reduce our use of fossil fuel-generated electricity by conserving energy wherever we can.

Ways to Conserve Energy

- **When replacing old appliances and electronic devices, look for energy-efficient ones** (The ENERGY STAR™ label indicates a product meets national energy-efficiency standards.)

- **Manage home lighting.**
  - **Turn lights off** when natural light is sufficient or when you leave a room.
  - **Switch to** LED lightbulbs which use up to 90% less energy than incandescent bulbs and last longer.
  - **Turn off porch lights and outdoor flood lights** when they are not needed (if you feel the need for outdoor security lights, use motion sensor lights).

- **Practice home climate control.**
  - **Adjust your thermostat according to the season**. (Moving your thermostat down just 2 degrees in winter and up 2 degrees in summer can significantly reduce your carbon footprint.)
  - **Adjust your thermostat according to when you are home and active and when you are sleeping.**
  - **Adopt passive heating and cooling techniques where possible.** (Weatherizing our homes—sealing leaks, enhancing insulation, installing high performance triple glazed windows—decreases our dependence on furnaces and air conditioning. Many of us cannot afford major weatherizing projects, but we can use drapes or shades to keep more heat in during winters and more heat out during summers).

- **Use less hot water**. (It takes a lot of energy to heat water. Use less hot water by taking shorter and cooler showers and washing your clothes in cold or warm instead of hot water.)

- **Turn off electronic devices and appliances when not in use.** (Energy is "bleeding out" throughout your house at all times. TVs, stereos, computers, routers, printers, chargers left plugged into an outlet, even in stand-by or sleep mode, consume energy. The U.S, Department of Energy estimates that this "phantom energy" amounts to 5-8% of all energy use in a single-family (totaling 4.6% of the nation's total residential energy use or about 44 million tons of carbon dioxide released into the atmosphere.)

    - **Advocate for energy efficiency standards** that require all electronic devices to minimize idle electricity consumption.
    - **Use a power strip** to conveniently turn off multiple devices at once. ("Smart power strips" have some "always on" sockets, and some use motion sensors to turn devices on and off automatically.)