



## Top 10 things you can do to “green” your home, apartment, or small business

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**Behavior Change:** You can reduce your energy bill and reduce your carbon footprint without paying a dime. Your energy and water bills are directly related to how an individual, family, or employee behaves. If you want to reduce your bills you need to look at how you “live” or “work” within your home or office. Some suggested ways to reduce your consumption are: turn off lights when not in use, turn off water when brushing teeth, adjust the set point on your thermostat when not home, and try to open windows when exterior temperatures are comfortable.

[http://www.energyquest.ca.gov/saving\\_energy/index.html](http://www.energyquest.ca.gov/saving_energy/index.html)

2

**Do It Yourself (DIY) Energy Assessments:** To get an idea about how your home, apartment, or small office compares to others there are several simple and free computer programs you can use. Performing an energy assessment of your living or working space helps you understand your savings if an upgrade was made. <http://hes.lbl.gov/consumer/>

3

**Upgrade appliances & artificial lighting:** If your refrigerator, stove, or dishwasher is over 15 years it might be worth upgrading to an Energy Star appliance. Energy star appliances meet strict guidelines set by the EPA and typically are 20-30% more efficient than current federal standards. Another simple and inexpensive way to reduce your electricity bill and carbon footprint is to replace incandescent bulbs with compact fluorescent bulbs. Upgrading your light bulbs will use 75% less energy compared to a standard incandescent bulb and increase its lifespan by tenfold.

<http://www.energystar.gov/index.cfm?fuseaction=refrig.calculator>

4

**Purchase green products:** Volatile Organic Chemicals (VOCs) are toxic chemicals that affect your health. VOCs are found in common cleaning products, paints, adhesives, and pesticides. To better the indoor air quality of your home, apartment or business, begin replacing your cleaning products with non-toxic products, use low or no VOC paints and store un-used toxic chemicals away from living or working areas. <http://www.epa.gov/iaq/pdfs/careforyourair.pdf>

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**Recycling/materials reuse:** Recycling not only reduces landfill waste, it also reduces greenhouse gases. In 2009 the EPA stated, 28% of municipal waste was paper goods while plastics accounted for 12%. Although the recycling rate has increased by 24% since 1980, there is still room for growth. At home or at the office set up a recycling program to include paper, cardboard, plastic, glass, metal and even electronics and batteries. In addition to recycling, buy recycled products which reduce further the dependence on virgin materials. [http://eartheasy.com/live\\_recycling.htm](http://eartheasy.com/live_recycling.htm)

6

**Reduce water consumption:** By reducing water consumption you not only save money on your water bill, but also reduce the energy required to treat public water at municipal treatment plants. Two simple and low cost options require installation of an aerator on any faucet or install a “showerstart” converter to your shower head. A slightly more expensive option would require the replacement of 1.6 gallon per flush (gpf) toilets with low flow (1.1 gpf) or dual flush toilets. [http://www.epa.gov/WaterSense/calculate\\_your\\_water\\_savings.html](http://www.epa.gov/WaterSense/calculate_your_water_savings.html)

7

**System maintenance:** Your heating, ventilation, and air conditioning (HVAC) systems need regular maintenance to run efficiently and consume less energy. The EPA suggests “dirt and neglect are the top causes of heating and cooling inefficiencies and failure,” therefore it is recommended to change air filters every three months and/or hire a contractor to inspect your system every spring and fall. [http://www.energystar.gov/ia/partners/publications/pubdocs/HeatingCoolingGuide%20FINAL\\_9-4-09.pdf](http://www.energystar.gov/ia/partners/publications/pubdocs/HeatingCoolingGuide%20FINAL_9-4-09.pdf)

8

**Insulate:** Heating and cooling alone account for 46% of an average home’s energy consumption. To reduce these costs, owners and renters should focus on how the building or space is insulated and sealed from air infiltration. The exchange of heat between the exterior and interior greatly impacts energy bills. Thermal insulation is one type of barrier that helps reduce this exchange. The EPA’s Energystar program provides DIY tips on how to install insulation and if you need to hire a contractor. [https://www.energystar.gov/ia/partners/publications/pubdocs/DIY\\_Guide\\_May\\_2008.pdf](https://www.energystar.gov/ia/partners/publications/pubdocs/DIY_Guide_May_2008.pdf)

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**Upgrade and seal windows:** Windows inherently lose heat because of glass’s thermal properties and air leakage and can negatively impact your energy bills. Upgrading your single pane windows to double pane assemblies or installing storm windows is one option to reduce energy consumption. A second and more economic option would require either installing gaskets at the bottom of operable sashes or caulking the perimeter of fixed windows. <http://www.finehomebuilding.com/how-to/articles/understanding-energy-efficient-windows.aspx>

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**Purchase renewable energy:** Renewable energy is better for our environment because it is replenishable and produces little, if any, emissions. Examples include solar, wind, biomass, geothermal, and biofuels. Purchasing certified renewable energy from utility companies is a low-cost option for a home or business owner to reduce the reliance on non-renewable fossil fuel. Another more expensive option would require installation of solar panels, small wind turbines, or geothermal heat pumps. <http://www.dom.com/dominion-virginia-power/customer-service/energy-conservation/green-power.jsp>

### Further Resources

*Eco-City Alexandria* <http://alexandriava.gov/Eco-City>

*Green Building in Alexandria* <http://alexandriava.gov/GreenBuilding>

*Take the Eco-City Challenge* <http://alexandriava.gov/EcoCityChallenge>

*Green Building Resource Center* <http://www.alexandriava.gov/gbrc>



ECO-CITY ALEXANDRIA

