

Home Energy Tips

From the 5 Planeteers



Topics for Discussion

- HVAC Maintenance
- Cooling and Heating
- Lighting
- Weatherization
- Windows
- Water Saving
- Water Heating
- Insulation
- Waste Management

Biggest Energy Users

- HVAC System
- Water Heating
- Pool (if you have one)

A lot of pools now come with an app you can use to regulate how many RPM's your pool is using. Get with your pool expert to see what are the proper RPMs are in the summer and winter. Most apps also show your wattage being used.

You can use your shoulder months as your baseload to see how much your heating and cooling system is costing you.



HVAC Maintenance

- **Change your air filter as directed by your HVAC specialist.**
- **Have your HVAC specialist come out in May to check your unit to make sure it is operating properly.**

If they say they had to put in Freon ask them where the leak is. Freon does not evaporate. If a unit is 10% low on Freon it will increase your cooling usage by 40%.

- **Every summer month take a water hose and wash off your outside unit's condensing coils. This will cut down on extra kWh usage.**



Cooling and Heating

- **The thermostat setting should be 78 degrees in the summer and 68 degrees in the winter.**

Every degree you turn your thermostat up or down affects your HVAC load between 6-8 percent.

- **Check the difference in your return and supply air temperature.**

There should be a difference of 18 degrees. If it is less than that you are probably low on Freon.

- **Ceiling fans are great as long as you are in the room.**

It will make you feel 2-3 degrees cooler. Ceiling fans do not make a difference when you are not in the room.

Lighting

- **Go with LEDs. They are about 80% more efficient and last much longer.**

Also, a watt is a watt. It helps in the summer because LEDs put out less heat.

- **Check the Kelvin Level when you buy your bulbs. It runs between 2000k-6500K.**

The lower the Kelvin the more yellow it is, the higher the more white it is. We prefer bulbs around the 2700 level.



Weatherization

- **Make sure all windows are caulked.**

If you can hear the wind when it is blowing hard you have a leak.

- **Use weatherstripping on all windows if you have a leak.**
- **Use door sweeps if your doors are not tight.**
- **Use the false plugin on your plugs.**

If they are not covered up they act like small chimneys and you are losing your cool air. If you have a fireplace make sure your chimney is closed, you will lose a ton of air if it is not.



Windows

- **If you are building a new home that is the time to put in the best windows you can.**

The ROI on even replacing a single pane window with even a double pane is about 25 years.

- **When direct sunlight hits a window it creates 250 BTUs of heat per square foot of window thus making your A/C work harder.**

In the winter just let the light in.



Water Saving

- **Only wash full loads in dishwasher and washing machine and use eco setting if possible**
- **Turn water off while brushing teeth**
- **Fill sink with water while shaving, rather than using the faucet (60% less water)**
- **Upgrade to eco flush toilets (40-50% less) if you are doing a bathroom renovation, or building a home**

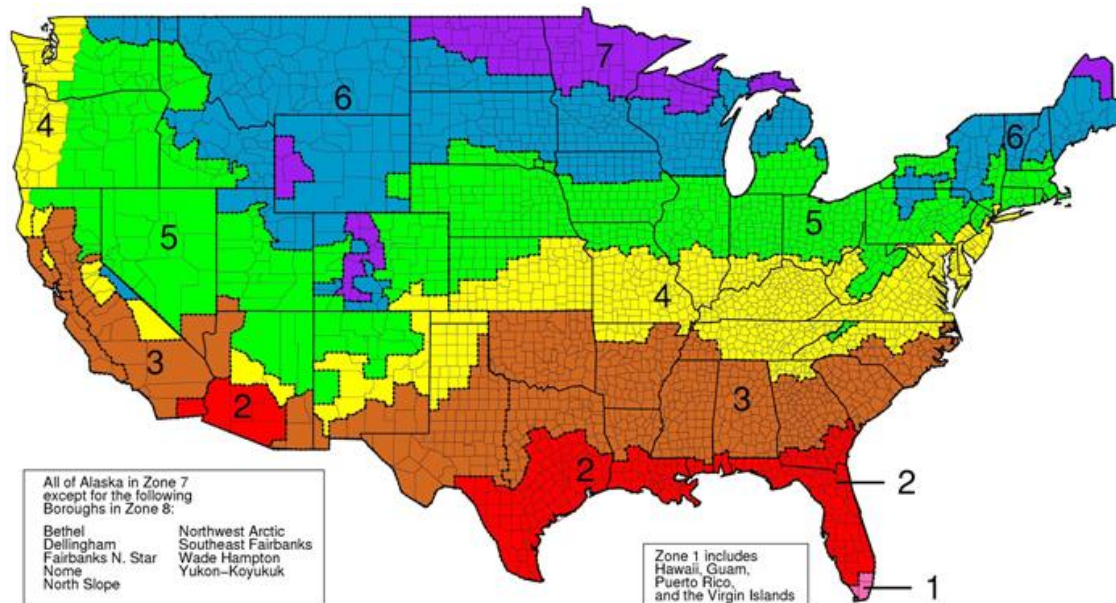
Water Heating

- **Lower thermostat from 140°F to 120°F**
- **Wash laundry with cold water when possible**
- **Drain your tank water heater every year to let out any debris that has collected**



Insulation

- Know your insulation needs
- When doing home upgrades, attic insulation is typically the best bang for your buck with regard to energy savings, better than windows and doors
- Some utilizes will incentivize new insulation
 - <https://www.oncor.com/takealoadofftexas/pages/home-efficiency> (ONCOR)
- Foam or cellulose insulation rather than roll in batt insulation when possible



Waste Management

- **RECYCLE**
 - <https://search.earth911.com/>
- **Compost – if you can**
 - **Reduce methane from landfills, and enriches your soil**
 - **Enriched soil needs less chemicals, which is better for the environment**

An Insider's Tour of a Recycling Plant



Make Your Recycling Count



Check Your Home

HVAC and Weatherization

- ❑ Change your air filter - <https://youtu.be/qCNlc1y18pA>
- ❑ Have an HVAC Specialist come inspect your A/C ones a year before the cooling season
- ❑ Hose off your outdoor condensing coils - <https://youtu.be/pzDNFuiAESE>
- ❑ Set thermostat to 78 degrees in the summer during the day to conserve energy and 68 in the winter
- ❑ Use ceiling fans to help circulate air when the house is warm during the summer, switching them to counterclockwise rotation in summer and clockwise in winter
- ❑ Upgrade old bulbs to LED when they go out
- ❑ Make sure windows and doors are sealed



Check Your Home

Water, Insulation and Waste Management

- ❑ Only wash full loads of laundry and dishes and use the eco setting if applicable
- ❑ Turn off water while brushing teeth and use a full sink of water when shaving
- ❑ Lower thermostat on water heater to 120 degrees vs the standard 140 - <https://youtu.be/aPadok0O81A>
- ❑ Drain and flush your tank water heater once a year - <https://youtu.be/hs5N7HyDUWo>
- ❑ When adding insulation to your home, consider the use of cellulose or foam insulation
- ❑ Double check that utility incentives are or are not available for insulation upgrades
- ❑ Recycle, Recycle, Recycle! Check with your local area on what items should and should not be recycled
- ❑ <https://search.earth911.com>
- ❑ Compost all your biodegradable waste to create a more self-sustainable home

Thoughts? Questions?

