

CHECK YOUR HOME'S EFFICIENCY

INEXPENSIVE WAYS TO IMPROVE THE EFFICIENCY OF YOUR HOME

THERE ARE 4 ASPECTS OF YOUR HOME THAT COULD BE GREATLY INCREASING THE EFFICIENCY OF YOUR HOME

- 1 Water Usage
- 2 Appliances
- 3 Lighting Equipment
- 4 Heating and Cooling

1 Water Usage

- ❑ **Maintain consistent hot water temperature**
Have the water heater set to 120 degrees Fahrenheit/medium setting on a gas heater dial or as measured at the faucet nearest to the water heater. Add an insulating wrap to an older water heater, check your manual to see if this is recommended if your water heater is new.
- ❑ **Limit hot water usage**
Avoid running your washer with hot water and opt for cold or warm water when possible. According to Treehugger, 90% of the energy used by the washer is used to heat the water, and the other 10% is used to run the machine. Using cooler water for every load can potentially save a significant amount of energy.
- ❑ **Conserve water by careful usage**
According to the U.S. Environmental Protection Agency (EPA), the average homeowner can save about \$170 a year with small changes to their water usage. Wash clothes in cold water, consciously run water while brushing your teeth or shaving, install a shower that uses about 17.2 gallons on average, avoid half loads on laundry in your washer, a full load conserves water and in turn money.
- ❑ **Consider installing a water recycling system**
Georgia water utility costs are billed high for the sewer water. So lesser the wastewater, the lesser would be the utility bill. Install a hot water recycling system to conserve wasted water during the heating process.
- ❑ **Use cold water for Laundry**
The clothes can be as cleanly washed with cold water as with hot water except for stained clothes. Thus, consider switching your laundry to a cold water mode.

2 Appliances

- ❑ Maintain your refrigerator at 35-40 °F and freezer at 0-5 °F. Maintain a standalone freezer at 0°F. Use the refrigerator door efficiently and keep the door closed whenever possible.
- ❑ Run the dishwasher full loads to save water and energy.
- ❑ **Power Down Electronics**
When not using the electronics, turn them off as these devices can draw a lot of energy simply by being plugged in. The US Department of Energy found constantly that plugged-in devices account for f5-10% of total energy use that can be minimized by efficient use of electronic appliances.
- ❑ **Avoid using your dryer and oven in the hottest hours of the day.**
Running your dryer will cause warm air to be drawn into your home and using your oven will add additional warm air to your home, causing your air conditioner to have to work harder.

3 Lighting Equipment

- ❑ **Keep lamps and other heat-producing appliances away from your thermostat.**
Having heat-producing appliances near your thermostat will tell it that the air in your home needs to be cooled more, causing the system to run longer and work harder than it may need to.
- ❑ **Low cost lighting control measures**
Low-cost measures can reduce the lighting loads significantly. Turn off lights when not in use and use dimmer switches for lighting control.
- ❑ **Switch to LED Lights**
Install LED Lights instead of CFL or incandescent for a longer lifespan and energy savings.



Information References:

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For more information, please visit:

arch.gatech.edu/flourishing-communities-collaborative



Heating and Cooling

- ❑ **Clean or change the HVAC filters** regularly every month during the peak seasons. The dirtier the filters get, the load on the system will be higher for cooling or heating your home which also results in low indoor air quality.
- ❑ **Vacuum indoor vents and keep vents unblocked**
Ensure the area around the vents are clear of furniture or other household items. Close to 25% more energy is required if your vents are blocked.
- ❑ **Clean around the outdoor condenser unit**
Ensure that evaporator and condenser coils on heat pumps, air conditioners, or chillers are clean. Dirty coils prevent heat transfer and clean coils save energy.
- ❑ **Limit Space Heater Use**
Be careful about your energy bills while using electric or gas-powered space heaters. They use 1,500 watts of energy to run and are costly. Ensure the model is energy-efficient.
- ❑ **Shade your HVAC Units**
If you are relocating or replacing your HVAC unit, ensure it is not placed in a region that receives excessive sunlight. If it is exposed to sunlight for long hours and gets overheated, it can use more energy to cool your home. Placing it against your home in an area that doesn't receive excessive amounts of sunlight will allow it to maintain a consistent temperature, and not use more energy in cooling your home.

- ❑ **Insulate any exposed ductwork.**
Wherever possible, run the ductwork in the building envelope in the conditioned space. If not, make sure the ductwork that runs through an unconditioned space is properly sealed so it doesn't leak any of your conditioned air. Fix the visual leaks with duct-sealing tape that is UL 181-rated. Insulate the ductwork with proper thickness and insulating material.

Recommended products:

Duct mastic: For large gaps in ductwork, use mesh tape and apply duct mastic over the tape.

Foil-backed tape: This is the best tape for heating ducts, care should be taken when choosing the tape for all temperatures. These are better than mastic and easier to handle.

Injected aerosol sealant: Most preferred material and it seals the duck permanently when pumped from inside through the duct hole.

- ❑ **Seal smaller gaps and cracks with caulk**
Caulk and seal leaks where plumbing, ducting, or electrical wiring penetrates through exterior walls, floors, and ceilings. Inspect for gaps and cracks regularly for better air sealing.
Acrylic Latex Caulk: Used to quickly fill space between drywall, doors, or windows

Expandable foam caulk: Expands and fills up larger gaps and holes, used around leaky electrical outlets, pipes, and window jambs

Butyl-rubber caulk: Used to seal up aluminum, metal, concrete, mortar, plastics, or rubber materials outdoors.

SUMMER MONTHS

During cooling months, **block** the direct **solar heat** by keeping curtains/blinds closed during the day, especially the windows facing east and west.



Keep the **windows open** during the night for the cool air.

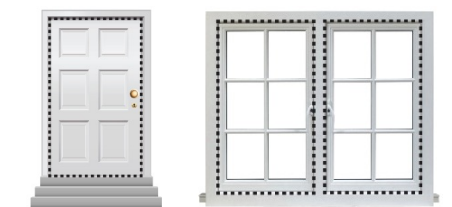


WINTER MONTHS

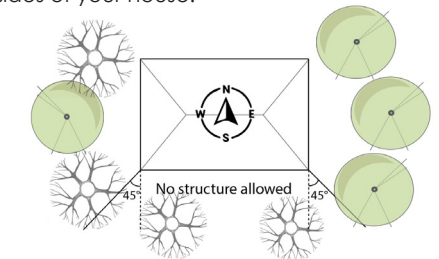
Opening the curtains during winter will allow even the smallest amount of sunlight to come through and naturally warm your home.



Plug air leaks with **weather stripping and caulking**. While it is a great solution to prevent heat loss, it's also prone to wear and tear. If it's sealing a door or window that gets a lot of use, you might need to replace the strip periodically.



Trees should be located strategically and **not block winter sun**. Plant trees that leaf out during the cooling season on the west and south sides of your house.



Trees can attractively shade the house and help clean the air; it helps prevent the summer heat from getting past the glass inside.

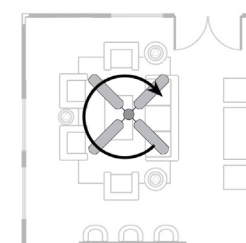
Maintain an air-conditioned house at 78°F or **higher**.



Set your thermostat as **low** as comfortable.



Use a **ceiling fan** instead of an evaporative cooler. Ceiling fans must rotate **counterclockwise** to create this cooling downdraft.



In winter, **reverse the ceiling fan** direction and run them at low speed to redistribute warm air that collects near the ceiling.

