The City of Llano offers these excellent suggestions for your personal home energy audit. Small changes can add up to large savings.

1. Minimize Phantom Loads

The term "phantom load" refers to the energy that an appliance or electronic device consumes when it is not actually turned on. According to the U.S. Department of Energy (DOE), "In the average home, 75 percent of the electricity used to power home electronics is consumed while the products are turned off." Phantom loads can be eliminated by unplugging appliances and electronics when not in use, or by plugging them into a power strip, and turning the strip off when they are not in use.

2. Use More Energy-efficient Appliances

When replacing appliances, make sure to look for the Environmental Protection Agency's Energy Star label before making a purchase. **Energy Star appliances** use between 10 and 50 percent less energy and water than their conventional counterparts. They may cost more than appliances without the Energy Star designation, but in most cases they will more than make up that additional cost through energy savings.

3. Change Your Light Bulbs

One of the most effective changes and least expensive is replacing your light bulbs. According to Energy Star, one of its qualified compact fluorescent light bulbs (CFL), which cost just a few dollars, "will save about $30 over its lifetime and pay for itself in about 6 months. It uses 75 percent less energy and lasts about 10 times longer than an incandescent bulb."

4. Install a Programmable Thermostat

Programmable thermostats work by automatically adjusting your home's temperature to your schedule, keeping it comfortable only when you need it to be. If you don't already adjust your thermostat throughout the day, a programmable thermostat could save you as much as 15 percent on heating and cooling costs.

5. Use Fans for Cooling

In the summer, use stationary, ceiling and whole-house fans to cool your home, reducing the need for air conditioning. For every degree you raise your thermostat, you reduce your cooling costs between 7 and 10 percent.

6. Seal Air Leaks

Look for any small cracks and gaps where air is leaking into and out of your home. According to Energy Star, between improving insulation and sealing leaks, homeowners could potentially **save 10 percent** on their annual energy bill. The first step in sealing a house is to seal windows and doors. An energy auditor can be hired to assess your house and find problem areas.

7. Make Windows More Efficient

Even if windows are sealed well, the window glass is a thin barrier against outside temperatures. The installation of new storm windows in your home, can provide energy savings. However, the cost of the storm windows should be weighed against the energy saved. Storm windows have a relatively short return on investment (about 10 years).

There are other simple and inexpensive ways to improve the energy efficiency of your windows. Windows may be covered with a transparent material to improve insulation. Bubble wrap is a good option, and the using of insulated shades and window quilts can provide additional insulation.

8. Improve Insulation

The Energy Star program estimates that **more than 50 percent** of a home's energy use goes toward heating and cooling. Beefing up the insulation in your house's attic, walls, floors and ceilings slows the flow of air between inside and outside, making it easier to control your home's temperature. The easiest place to add insulation in your home is the attic.

9. Conserve Water

Using less water will lower your water bill. And when you use less hot water, you'll also see savings in your electric bill if you have an electric water heater. According to DOE, water heating is the third most energy consuming function in the home. To cut down on water use, take faster showers and be conscious of the water you use when washing dishes and clothes and preparing food. You can also save energy by lowering your hot water temperature. According to DOE, a water thermostat setting of 120 degrees is sufficient for most uses.

10. Plant Trees and Shrubs

Planting shade trees around your home can lower your summer energy bill by reducing your home's exposure to the sun. Energy savings from a tree varies greatly depending on its size and location in relation to your house. Planting shrubs and bushes around your home can improve insulation in the summer and winter. DOE says that if they are planted 1 foot away from your home, they create a dead airspace that shields against cold or hot outdoor temperatures.