

Energy Efficiency and Energy Conservation: What is the difference?

The terms energy efficiency and energy conservation both refer to saving energy through its wise and rational use to combat climate change and other environmental issues. These two terms are often used interchangeably, but they have distinct meanings.

Energy efficiency is achieved by using different technologies to get the same output or function while using less energy. The benefits of energy efficiency extend beyond homes, offices, and schools and other buildings. Technological advancements have created energy-efficient appliances, electronics, and electrical devices, which altogether contribute to reduced energy use for heating, cooling, and powering daily activities. For example, replacing incandescent bulbs with energy-efficient LEDs leads to reduced electricity consumption and increased savings. This is because LEDs use less energy, generate minimal heat, and have a longer lifespan.

Energy conservation is the practice of reducing energy consumption through deliberate actions and changes in behaviour. It results in using less energy to achieve the same output or function. Simple actions such as turning off lights in unoccupied rooms, unplugging unused electronics, and opting for energy-efficient appliances that use less electricity are all examples of energy conservation practices.

Therefore, energy efficiency and conservation ultimately lead to using less energy to perform daily tasks and functions.

Below are several differences between energy efficiency and energy conservation.

Energy Efficiency	Energy Conservation
Upgrade to LED lights and enjoy the same brightness, while using less energy and saving more money.	Develop a habit of turning off lights when not in use and consider installing motion sensors to automatically turn lights on when someone enters a room and off when it is unoccupied.
Choose a refrigerator with an Energy Star label, high Energy Rating Score, or inverter technology for optimal energy efficiency.	Set a refrigerator's temperature to the recommended setting to preserve food quality and lower energy use.
Install low-flow showerheads and faucet aerators for efficient water use and energy savings. They use less water, reducing the amount of energy needed for heating.	Take shorter showers, and wash items with tap water to conserve energy.
Use an energy efficient dishwasher and washing machine and only run full loads in it to save time, money, and electricity.	Consider handwashing dishes and dry clothes naturally on a clothesline in the sun.
Switch to an electric vehicle (EV) or a fuel-efficient car.	Choose walking, biking, carpooling, or public transportation to help conserve energy.

Utilize power strips with on-and-off switches to conveniently control connected electronics and appliances.	Unplug electronics and appliances that are not in use.
Choose an air conditioning unit with high energy efficiency rating or inverter technology.	Maximize natural ventilation whenever possible to reduce air conditioning use.
Install occupancy sensors in intermittently occupied spaces such as homes, offices, and schools to optimize lighting, ventilation, and temperature control.	Cultivate a habit of turning off lights, adjusting thermostats, and controlling temperature systems for optimal efficiency.
Invest in a solar water heating system instead of an electric water heater for long-term energy and cost savings.	Adjust the thermostats on solar water heaters by regulating water temperatures to reduce unnecessary heating and energy waste.
Consider implementing a greywater system to reuse wastewater for different activities.	Collect rainwater for reuse and practice conserving water and energy by setting up barrels or buckets.

By combining energy-efficient technology with conservation-minded behaviours, people can save electricity, money, and protect the environment, all of which contribute to building a sustainable, low-carbon future.

Save Energy Today! Be An Energy Champion!