



Tips to save on energy bills at Home

We depend on energy for almost everything in our lives. Most of us forget that non-renewable energy is available in plenty but it is limited and hence to maintain the quality of life, it is important that we use our energy resources wisely.

To conserve energy, one has to cut back on the amount of energy used. Energy conservation is the act of saving energy by reducing a service. Whereas, energy efficiency is the act of saving energy by keeping the same level of service by using energy more effectively through energy efficient /renewable energy products. This automatically reduces amount of energy used. It does not require physical efforts but, requires awareness on energy efficient products and renewable energy products to take correct purchasing decisions. For example, if you turn off lights while leaving a room, you are practicing energy conservation. If you replace inefficient lights with LEDs, you are practicing energy efficiency.

Energy conservation and Energy efficiency is important and beneficial for many reasons. You can save money, increase your property value, and protect the environment all through simple energy-saving measures. Here are few tips to follow:

CERC-ENVIS Resource Partner

Ministry of Environment, Forest & Climate Change , GOI has recognized Consumer Education & Research Centre as ENVIS (Environmental Information System) Resource Partner with the theme "Environment Literacy- Ecolabelling and Eco-friendly Products". The focus is to provide environmental information to decision makers, policy planners, scientists & engineers, research workers etc. across the country.

1. Turn your refrigerator down

Refrigerators are one of the biggest contributors (about 15%) of a typical residential electricity bill, and efficiently operating the same can significantly impact the electricity bill. Set the temperature control knob in refrigerator to medium cool for optimum cooling which would result in lesser electricity bill. Setting the knob at high cool will increase the electricity consumption significantly. (In India controlling knobs are marked with settings like 1, 2, 3 or Low, Med, High, or summer, winter, monsoon). It is suggested not to stuff the refrigerator full as it will hinder the flow of cold air there by decreasing its efficiency. Adequate free space will increase the cooling efficiency of the refrigerator.



2. Use energy-efficient lighting products



Use energy-efficient LED tubes, LED night lamps & bulbs in your lighting fixtures to use 25-70 percent less energy, compared to regular incandescent bulbs/ night lamps/ tube lights.

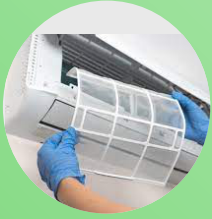
3. Use smart power strips

Even when not in use, household electronics still draw power from outlets. This phenomenon is called “phantom load” or standby power. Energy-saving smart power strips, which shut down appliances that have gone into standby mode, help you cut down on phantom-load costs, potentially resulting in money and energy savings.



Note: While using these smart strips, one has to make sure that the standby power of the appliances is not more than the wattage specified (marked) on strip. In case the appliance connected has more stand by power than that marked on the smart strip, the strip may not work. Example, if smart power strip is marked with 30W, one has to make sure that appliances drawing less than 30W standby power only should be connected to it to use it efficiently.

4. Clean or replace air as recommended



The air conditioner and heater are the biggest energy users in most homes, and these appliances have to work even harder with dirty air filters. Note the date of installation on the filter to help you remember when it needs to be replaced. It is advisable to set temperature at 27-28 °C.

5. Do full loads

Make sure your dishwasher and washing machine are full before running them to get the most energy-saving use from each run cycle.



6. Air-dry dishes and clothes



Instead of using your dishwasher's drying feature, consider letting the dishes air-dry. And instead of using the dryer on a nice warm day, hang your clothes outside to dry.

7. Bake with glass or ceramic pans

You can set the oven's temperature 25 degrees Fahrenheit lower than indicated in the recipe when you do this.



8. Cook using the right-sized burner



Conserve energy by using your stove's small burners for small pots and large burners for large pots.

9. Cut down on air leaks in your home

You're paying for warm air in the winter and cool air in the summer don't let that money escape! Check your windows and doors for cracks and gaps, and seal them up with new weather stripping or caulk.



10. Use renewable energy

Products like solar water heaters, solar cookers, solar pumps, solar lanterns etc. Government is giving subsidies for making these products affordable.

How to calculate power consumption?

Sr. No.	Names of Appliances	Rated Watts (approx.) (w)	No. of Hours used (H)	Total Energy used per appliance per day (wh)	No. of Appliances used	Total Energy used by all appliances per day (wh/Per day)
1	LED Tubelights	20	5	100	4	400
2	Ceiling Fan	60	10	600	5	3000
3	Refrigerator	150	24	3600	1	3600
4	Air Conditioner	1000	5	5000	1	5000
5	Television	100	6	600	1	600
6	Computer	200	9	1800	1	1800
7	Washing Machine	500	1	500	1	500
8	Geyser	1000	1	1000	1	1000
9	Mixer	500	0.5	250	1	250

Above table is a representation on typical energy consumption in small house.

Note: Wattage will vary with new technology energy efficient appliances. Appliances like geysers and air conditioners consume more power and appliances like LED tubes, fans, refrigerators are used for long hours. Hence it is preferable to use such appliances with BEE star labelling. Star labelled appliances help to reduce the power bills through energy efficiency.

Total units consumed per day = 16,150 Wh For 30 days = Unit*30 =16,150*30 =4,84,500 Wh/month 1kw=1000w	Hence total energy consumed for 30 days is 484.5 kWh Energy Bill = units in kWh*cost of per unit (cost per unit varies with state)
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