SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35

Accredited by NBA-AICTE and Accredited by NAAC – UGC with A+ Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME: 19EEO305 /Renewable Energy Generation Technology

III YEAR / VI SEMESTER

UNIT 1- SCENARIO OF RENEWABLE ENERGY

Topic 4 – Needs and Advantages

SUCCESSFUL STUDENT

Positive Attitude

Professionally Groomed

Socially Interactive

Technically Skillful

Benefits of Energy Conservation

- Slows Down Global Warming
- Reduces Use of Fossil Fuels
- Saves Money

carbon collective

The Benefits of Energy Efficiency

CITY OF Lethbridge

Looking to save money while helping the environment?
Here are things you can do at home, on the go, and at your place of work to reduce energy use.

Save money through lower heating and cooling bills

Better insulation and window and doorway sealing lead to a more comfortable home – warmer in the winter and cooler in the summer

Improved heating and ventilation systems lead to better indoor air quality

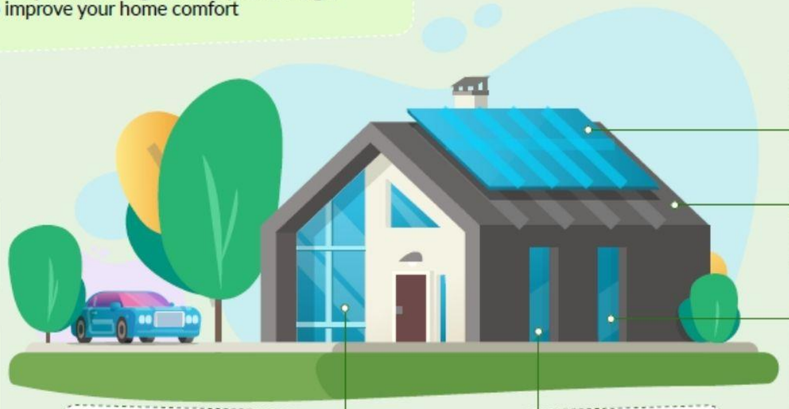
Saving Energy at Home

If you are considering home renovations, or just want to get some quick savings, make the most of the following ideas to improve your home comfort and reduce costs.

Automatically adjust temperatures with smart thermostats

Replace old appliances with energy efficient furnaces, refrigerators, washing machines, and dishwashers

Practice energy saving habits by switching off lights and appliances when you don't need them, making sure doors and windows are firmly closed, and by remembering to turn your thermostat down when you know you'll be away from the home



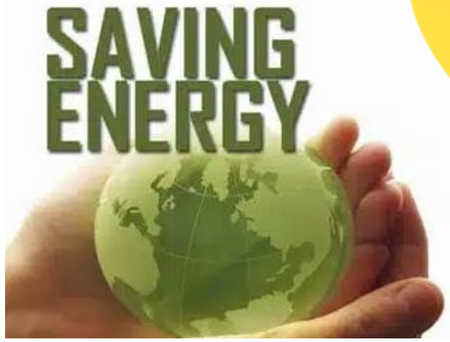
Rooftop solar panels can cut down electricity costs while powering homes with clean energy

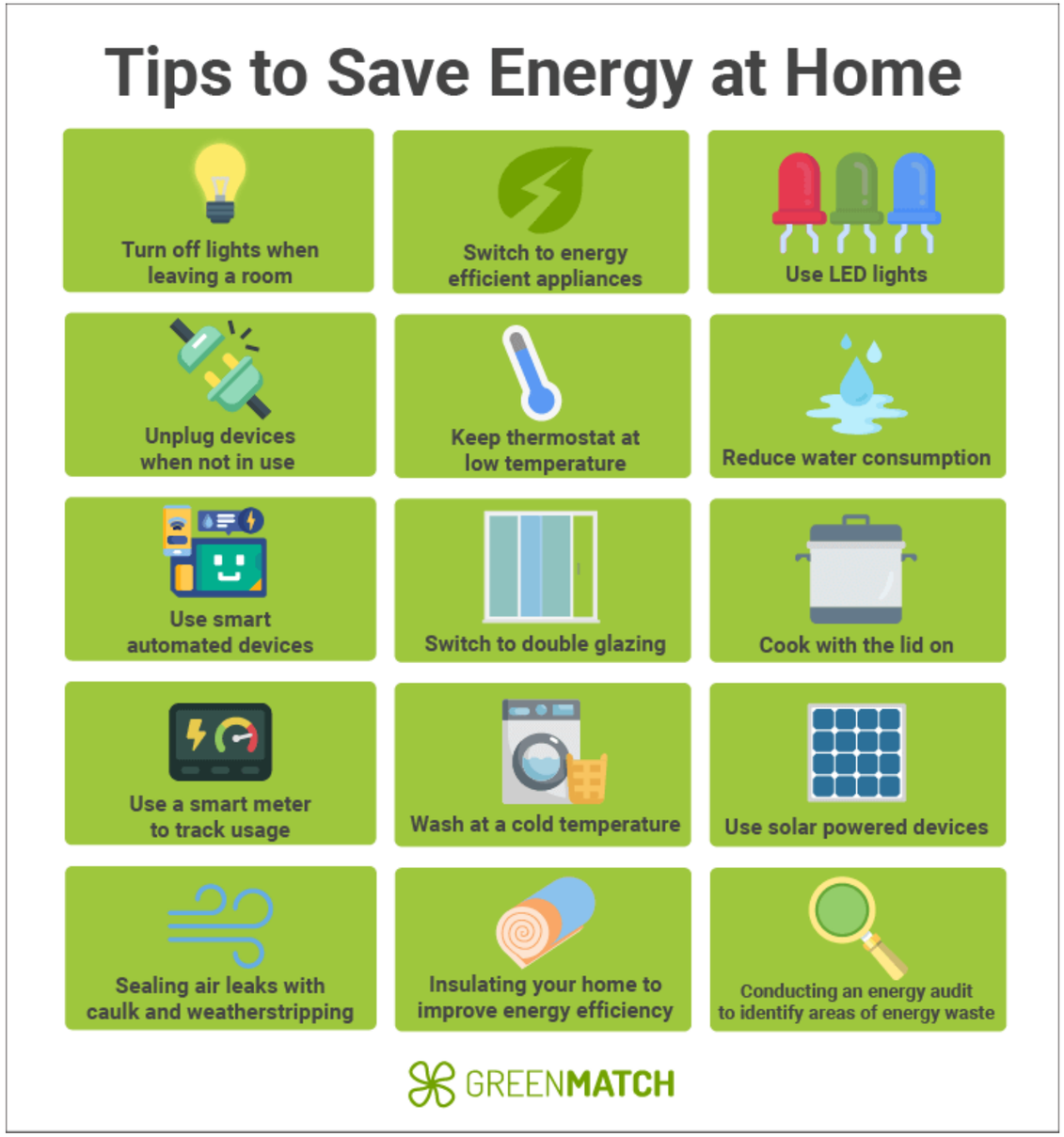
Keep the heat inside in the winter and outside in the summer by re-insulating your walls or roof

Replace incandescent bulbs with energy efficient alternatives, and consider installing lighting controls to automatically turn off or on lights as needed.

Consider replacing old windows and doors with the latest well-insulated windows and doors

Cut down drafts around windows and doors by replacing seals




Tips to Save Energy at Home
Turn off lights when leaving a room
Switch to energy efficient appliances
Use LED lights
Unplug devices when not in use
Keep thermostat at low temperature
Reduce water consumption
Use smart automated devices
Switch to double glazing
Cook with the lid on
Use a smart meter to track usage
Wash at a cold temperature
Use solar powered devices
Sealing air leaks with caulk and weatherstripping
Insulating your home to improve energy efficiency
Conducting an energy audit to identify areas of energy waste
GREENMATCH


RESPONSIBLE
CONSUMPTION

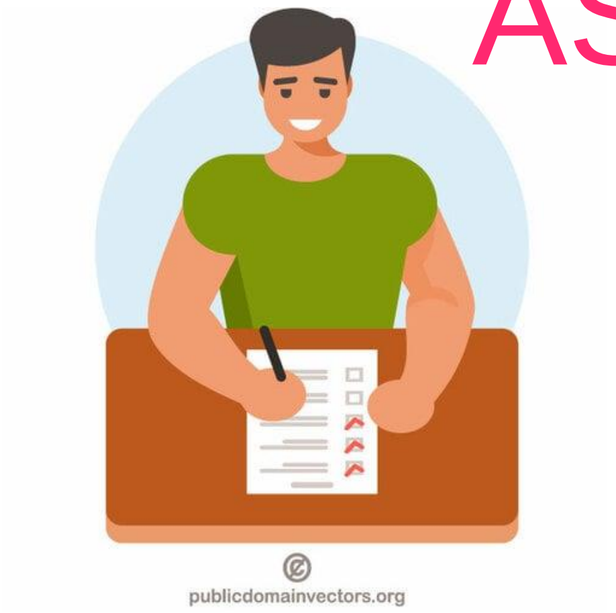
NEED OF ENERGY CONSERVATION

potential in industrial and agricultural sectors.

1.5.2 Need of Energy Conservation : Why energy conservation is required.?

- Energy conservation is an important element of energy policy.
- It is a more environmentally favourable alternative to increase energy production.
- Energy conservation reduces the energy consumption and energy demand.
- This reduces the rise in energy costs, and can reduce the need for new power plants, and energy imports.
- The reduced energy demand can provide more flexibility in choosing the most preferred methods of energy production.
- Energy conservation is often the most economical solution to energy shortages.
- Energy conservation facilitates the replacement of *non-renewable resources* with *renewable energy*.
- Effects of climate change can be minimized by reducing emissions through energy conservation.

ASSESSMENT



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Reference Book:

1. S.P. Sukhatme, ‘Solar Energy’, Tata McGraw Hill Publishing Company Ltd., New Delhi, 1997. (UNIT II)

2. G.N. Tiwari, ‘Solar Energy – Fundamentals Design, Modelling and applications’, Narosa Publishing House, New Delhi, 2002. (UNIT II)

3. S.M. Muyeen,” Wind Energy Conversion Systems: Technology and Trends”, Springer 2012. [UNIT III]

Text Book:

1. G.D. Rai, ‘Non Conventional Energy Sources’, Khanna Publishers, New Delhi, 2006. (UNIT I - V)

2. D.P.Kothari, K.C.Singal and Rakesh Ranjan,”Renewable energy sources and Emerging Technologies”, PHI Pvt. Ltd., 2009. (UNIT I-V)

THANK YOU!!