

Energy Conservation Act – UPSC Notes

The Energy Conservation Act, 2001 was enacted to provide for efficient use of energy and its conservation and for matters connected therewith. This act provides for the establishment and incorporation of the **Bureau of Energy Efficiency (BEE)**.

Introduction

- Our country has a vast potential of energy saving.
- It is estimated that measures for energy conservation and improving energy efficiency have the potential for creating an equivalent capacity of a minimum of 25000 MW.
- The Government of India enacted the Energy Conservation Act for redeeming this potential, and it came into force with effect from 1st March 2002.
- The Act provides the **legal framework, institutional arrangement and a regulatory mechanism** at the Central and State level to embark upon the energy efficiency drive in the country.

Background

- As a thumb rule, the energy needs of a country are about 1.5 times its GDP, or the economic growth rate.
- The country's known oil and natural gas reserves are meagre and may last for only a few years or so.
- India's oil imports are already very high, and dependence on further imports is bound to affect our economy and energy security.
- This scenario warrants a firm thrust on:
 - Improving energy efficiencies in new generation capacities, supply side, demand side and end-user side; and
 - Lowering the energy intensity in our economy.

Important Features of Energy Conservation Act, 2001

The important features of Energy Conservation Act, 2001 are as follows:

Bureau of Energy Efficiency (BEE)

- The Bureau of Energy Efficiency has been established with effect from **1st March 2002** under the provisions of the Energy Conservation Act, 2001.
- It is responsible for the implementation of policies and programmes related to energy.
- It also coordinates the implementation of energy conservation activities.
- The **mission** of the Bureau is:
 - To institutionalise energy efficiency services,
 - To enable delivery mechanisms in the country
 - To provide leadership to energy efficiency in all sectors of the economy
 - To assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 (Amendment Act, 2010).
- Its primary objective is to reduce energy intensity in the Indian economy.

Powers and functions of BEE

The Bureau may perform such functions and exercise such powers, which are as follows:

- To recommend to the Central Government the norms for processes and energy consumption standards required to be notified.
- To recommend to the Central Government for issuing of the **energy savings certificate**.
- To prepare standards and labels of appliances and equipment.
- To develop a list of designated consumers.
- To undertake promotional activities in coordination with centre and state level agencies.
- To develop Energy Service Companies (ESCOs).
- To transform the market for energy efficiency.
- To create awareness through a variety of measures including clearing house.
- To promote innovative financing of energy efficiency projects.

Standards and Labelling

- Standards and Labelling (S & L) has been identified as a key activity for improvement in energy efficiency.
- The S & L programme, when in place, would ensure that only energy efficient equipment and appliances would be made available to the consumers.
- The main provisions of the Act on Standards and Labelling are:

- To evolve minimum energy consumption and performance standards for notified equipment and appliances;
 - To prohibit manufacture, sale or purchase or import of such equipment or appliance, which does not conform to the energy consumption standards;
 - To introduce a mandatory labelling scheme for notified equipment appliances to enable consumers to make informed choices; and
 - To disseminate information on the benefits of energy conservation and efficient energy use to consumers.
- The equipment to be covered initially under the S&L programme are household refrigerators, air-conditioners, water heaters, electric motors, agriculture pump sets, electric lamps and fixtures, industrial fans and blowers, and air-compressors.

Central Energy Conservation Fund

- This fund is to be set up at the Centre to develop the delivery mechanism for large-scale adoption of energy efficiency services, such as performance contracting and promotion of Energy Service Companies (ESCOs).
- The fund is expected to give a thrust to R & D and demonstration in order to boost market penetration of efficient equipment and appliances.
- It would support the creation of facilities for testing and development and to promote consumer awareness.

FAQ about Energy Conservation Act

What is an Energy Audit?

Energy Audit means the verification, monitoring and analysis of the use of energy including submission of a technical report containing recommendations for improving energy efficiency with cost-benefit analysis and an action plan to reduce energy consumption.

What are Energy Conservation Building Codes?

Energy Conservation Building Codes encompass the norms and standards of energy consumption expressed in terms of per square metre of the area wherein energy is used.

Who are designated customers?

The Energy Conservation Act provides the list of designated consumers, which includes the energy-intensive industries, Railways, Port Trust, Transport Sector, Power Stations, Transmission & Distribution Companies and Commercial buildings or establishments. The government notifies the designated consumers.

