

# THE ENERGY CONSERVATION ACT, 2001

# BACKGROUND



- India needs to sustain a **GDP growth rate of over 9% per annum** over the next two to three decades in order to eliminate poverty
- Energy consumption will need to grow at a commensurate pace for such a GDP growth
- The present installed capacity is **1,38000 MW**
- The **estimated potential** for energy saving during peak hours is **9240 MW**
- The need for efficient use of resources, energy conservation assume significance and must be an integral part of the policy tools

# ENERGY CONSERVATION ACT 2001



- An Act to provide for **efficient use of energy and its conservation** and for matters connected therewith or incidental thereto
- It extends to the whole of India except the **state of Jammu and Kashmir**
- It was enacted by Parliament in the Fifty-second Year of the Republic of India on **October 2001**
- The Bureau of Energy Efficiency (BEE) came into force from **March 2002 onwards**

# POWERS OF CENTRAL GOVT.

- Specify the norms for processes and energy consumption standards for any equipment, appliances which consumes, generates, transmits or supplies energy
- Specify equipment or appliance or class of equipments or appliances, as the case may be, for the purposes of the proposed legislation
- Prohibit manufacture or sale or purchase or import of equipment or appliances unless such equipment or appliances conforms to energy consumption standards
- Direct display of such particulars on label on equipment or on appliance

## .....Powers Of Central Govt.

- Specify, having regard to the intensity or quantity of energy consumed by any user or class of users of energy **as designated consumer** for the purposes of the legislation
- **Direct any designated consumer** to get energy audit conducted by an accredited energy auditor
- **Direct designated consumer** to appoint energy manager in charge of activities for conservation of energy
- **Prescribe minimum qualifications** for appointment of energy managers

## .....Powers Of Central Govt.

- Direct any designated consumer to furnish information with regard to energy consumed and action taken on the recommendation of the accredited energy auditor
- Direct any designated consumer to prepare a scheme for efficient use of energy and its conservation and implement such schemes as may be prescribed
- Prescribe energy conservation building codes for efficient use of energy and its conservation in the building or building complex

# POWERS OF BEE

- Recommend to the Central Government the norms for processes and energy consumption standards for equipment and appliances
- Recommend to the Central Government for notifying any user or class of users of energy as a designated consumer having regard to intensity or quantity of energy used by it
- Recommend to the Central Government the particulars required to be displayed on label of equipments or on appliances and manner of their display
- Take suitable steps to prescribe guidelines for energy conservation building codes

## .....Powers Of BEE

- Develop testing and certification procedure and promote testing facilities for certification and testing for energy consumption of equipment and appliances
- Promote use of energy efficient processes, equipment, devices and systems
- Specify qualifications for the accredited energy auditors, the manners and interval of time in which the energy audit shall be conducted by such auditors
- Specify certification procedures for energy managers to be appointed by designated consumers



## .....Powers Of BEE

- Prepare educational curriculum on efficient use of energy and its conservation for educational institutions, boards, universities or autonomous bodies and coordinate with them for inclusion of such curriculum in their syllabus

# POWERS OF STATE GOVT.

- Amend the energy conservation building codes to suit the regional and local climatic conditions
- Direct every owner or occupier of a building or building complex being a designated consumer to comply with the provisions of the energy conservation building codes
- Direct if considered necessary for efficient use of energy and its conservation, any designated consumer to get energy audit conducted by an accredited energy auditor in such manner and at such intervals of time as may be specified by regulations

## .....Powers Of State Govt.

- Designate any agency as designated agency to coordinate, regulate and enforce provisions of EC Act 2001 within the State
- Take all measures necessary to create awareness and disseminate information for efficient use of energy and its conservation

# PENALTIES & APPELLATE TRIBUNAL

- If any person fails to comply, he shall be liable to a penalty not exceeding ten thousand rupees
- An additional penalty of one thousand rupees for every day during which such failures continues
- Member of State Commission shall be appointed as an adjudicating officer for holding an inquiry
- No civil court shall have jurisdiction to entertain any matter related to the inquiry
- To hear appeals against the orders of the adjudicating officer, the Central Govt. shall establish an ATEC

**INITIATIVES  
OF  
BUREAU OF  
ENERGY EFFICIENCY**

# STATE DESIGNATED AGENCIES

- The Govt. during the XI Five Year Plan has initiated a scheme to strengthen institutions at national level as well as the State Designated Agencies (SDA's) at the state level
- SDA's are statutory bodies set up by states to implement energy conservation measures at state level and are expected to play the roles of a developmental agency, a facilitator and a regulator / enforcing body

# STATE DESIGNATED AGENCIES

- The scheme seeks to develop and implement Energy Conservation Action Plan (ECAP) based on a uniform template evolved for taking measures necessary to build institutional and human capacity
- As a part of the scheme, an amount to the tune of Rs. 34.30 lakhs has already been disbursed to Department of Renewable Energy, Haryana as 1<sup>st</sup> installment for the financial year 2007-08

# BACHAT LAMP YOJANA

- To promote energy efficient and high quality CFLs as replacement for incandescent bulbs in households
- The scheme seeks to leverage CDM revenues as a result of energy consumption reduction to reduce the price of the CFLs
- BEE will monitor the scheme under an approved methodology of CDM Executive Board of UNFCCC
- Target replacement of 400 million incandescent bulbs with CFLs could save an estimated 4000 MW demand during the XI plan



# STANDARDS & LABELLING SCHEME

- It targets high-energy end use equipments and appliances to lay down minimum energy performance standards
- The scheme is being implemented on voluntary basis for Room Air conditioners, Refrigerator (No-Frost), Direct Cool and Tubular Fluorescent Lamps
- The wider proliferation of energy efficient equipments is expected to save 18 billion units per annum by 2011 which translates into annual saving of electricity worth Rs 5,500 crores and an avoided capacity addition of over 3000 MW during XI plan

# ENERGY CONSERVATION BUILDING CODE

- Setting up of minimum energy efficiency standards for design and construction, while enhancing occupant comfort
- Building means any structure or erection or part of a structure or erection which is having a connected load of 500 kW & intended for commercial purpose only
- State Govt. can amend the code to suit local and regional climatic conditions
- The code deals with Building Envelope, HVAC, Lighting, Service Hot Water & Pumping and Electrical Power
- An estimated capacity addition of 500 MW can be avoided during the XI plan

# AGRICULTURAL DSM

- It promises immense opportunity in reducing the overall power consumption
- Improving efficiencies of ground water extraction and reducing the subsidy burden of the states without sacrificing the service obligation of this sector
- An estimated capacity addition of 1000 MW can be avoided during the XI plan

# MUNICIPAL DSM

- The energy costs constitute up to 60-70 percent of an Indian municipality's total cost of pumping water to its residents
- This financial constraint can be overcome through efficient water delivery systems
- This can translate into measurable energy savings due to reduced pumping requirements and improved performance
- An estimated capacity addition of 1000 MW can be avoided during the XI plan

# SMALL & MEDIUM ENTERPRISES

- To promote energy efficiency in SMEs during the XI plan
- Many energy-intensive SMEs clusters located in various states of the country have large potential for energy savings
- Initially 25 clusters in the country have been identified which have immense savings potential
- An estimated capacity addition of 500 MW can be avoided during the XI plan

# EXPECTED OUTCOMES

- Barriers for EE & DSM to be removed.
- The State Regulatory Commissions and Utilities to be encouraged to implement the Conservation initiatives
- Engagement of Stakeholders

## **Industrial and Commercial users**

- Time of use tariff for industrial and commercial users.
- Incentives to industry to adopt conservation/efficiency measures

## .....Expected Outcomes

### **States**

- Encourage implementation of DSM programmes in Agriculture/ Municipalities

### **Domestic consumers**

- Ensuring availability at low cost and promoting use of low cost CFLs.
- Awareness

THANK  
YOU