

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

UNSTARRED QUESTION NO:3120

ANSWERED ON:11.12.2014

ENERGY EFFICIENCY

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Will the Minister of POWER be pleased to state:

- (a) the details of the plan chalked out by the Government for promoting energy efficiency in power sector;
- (b) the impact of Energy Conservation Building Code, 2007 on oil saving and saving of oil equivalent energy through energy efficient measures in the country during the last three years and the current year; and
- (c) the steps taken/proposed to be taken to further step up energy efficiency in the country including compliance of the provisions of the said Code?

Answer

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, COAL AND NEW & RENEWABLE ENERGY (SHRI PMUSH GOYAL)

(a) : Under the National Mission for Enhanced Energy Efficiency (NMEEE), targets for enhancing energy efficiency have been set for 144 thermal power stations (including coal/lignite, gas and diesel). Under NMEEE, each power station has been mandated to reduce their net heat rate i.e. energy used per unit of net electricity generation (kilocalorie per kilowatt hour) which amounts to total saving of 3.21 Million Tonne of Oil Equivalent (MToE). Further in this direction, Performance Optimization Diagnosis Softwares have been provided to various power plants and state utilities to help identify energy efficiency improvement opportunities.

(b) : At the end of every plan period, Bureau of Energy Efficiency conducts an impact assessment study by an independent agency based on which savings are recorded. During the 11th Plan period, the impact assessment report has assessed an avoided capacity of 564 MW on account of Energy Conservation Building Code (ECBC), which is equivalent to 0.237 Million Metric Tonns of Oil Equivalent energy (MToE). The estimated savings for the current plan period would be available at the end of 12th Plan.

(c) : Ministry of Power and Bureau of Energy Efficiency (BEE) have taken following steps to further step up energy efficiency in the country including compliance of the provisions of the said code:

- i. Energy efficiency labeling for 19 appliances.
- ii. Fuel efficiency standard prescribed for passenger cars.
- iii. Energy Conservation Building Codes (ECBC) formulated for energy efficiency improvement in commercial buildings.
- iv. Demonstration projects on Demand Side Management (DSM) in Municipal, Household, Agriculture and Small & Medium Enterprises (SME) sectors.
- v. Specific energy consumption norms prescribed for energy intensive industries notified as designated consumers.
- vi. Capacity building of State Designated Agencies and Distribution Companies for effective implementation of energy efficiency programmes.
- vii. Enabling investments in energy efficiency projects through a special purpose joint venture company, Energy Efficiency Service Ltd. (EESL), on a performance linked repayment business model.

The ECBC has been developed by the Central Government, and its enforcement lies with the State Governments and urban local bodies through notification within their jurisdictions. Following states have gone ahead with ECBC amendment and adoption:

S. No. Updated Status Name of States/UTs

1 States where ECBC has been notified. Rajasthan, Odisha, Uttarakhand, Andhra Pradesh, Punjab, Karnataka & UT of Puducherry

To promote adoption of ECBC in the built environment, several enabling measures have been put in place. These include (1)

empanelment of ECBC expert architects, (2) development of technical reference material such as ECBC User Guide and, Tip Sheets, (3) development of conformance/compliance check tool to help architects/ design professionals and code compliance officials to assess conformance with code requirements, (4) Standard ECBC Training Modules covering various aspects of the Code (5) harmonization of ECBC with National Building Codes and (6) development of model building bye-laws which mandate minimum energy standards for residential and commercial buildings/complexes.

In addition, a scheme with an institutional framework for training and capacity building of ECBC professionals has been developed to create a pool of master trainers. BEE is providing financial support to proactive States for capacity building of Architects/design professionals and Code compliance officials of the State Government/ ULBs based on the requirements of the State.

BEE is also providing technical support to a number of Government/ private projects for ECBC compliant demonstration projects.