

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.3175
TO BE ANSWERED ON 23.03.2021

INITIATIVES TO CONSERVE ELECTRICITY

3175. SHRI P. BHATTACHARYA:
SHRI HARNATH SINGH YADAV:

Will the Minister of **POWER**
be pleased to state:

- (a) the details of initiatives taken by Government to conserve electricity;
- (b) whether any mechanism exists to ensure efficiency in domestic, agricultural and commercial sectors of the country;
- (c) if so, the details thereof;
- (d) whether Government has conducted any energy audit during the last three years; and
- (e) if so, the details thereof along with the steps taken to ensure implementation of the mechanism developed to conserve electricity?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (c): The Energy Conservation Act, 2001 provides for efficient use of energy and its conservation. In order to promote efficient use and conservation of electricity and other forms of energy, in domestic, agriculture and commercial sectors of the country, the Bureau of Energy Efficiency (BEE), a statutory body under the Ministry of Power, Government of India has been implementing various programmes and schemes. In addition, Energy Efficiency Services Limited (EESL), a joint venture of Public Sector Undertakings (PSUs), under Ministry of Power, has also been implementing programmes to promote saving of electricity in the above mentioned sectors. The details of these initiatives are as under :

1. Domestic Sector

- (i) Standards and Labelling (S&L) Programme is a flagship initiative that was developed with the key objective of providing consumers an informed choice regarding the energy savings and leading to cost-saving potential of various energy consuming appliances. This scheme prescribes minimum energy performance norms for appliances/equipment, rating the energy performance on a scale of 1 star to 5 star with 5 being the most energy efficient one. As on 1st March, 2021, the programme covers 28 appliances out of which 10 appliances are under the mandatory regime, while the remaining 18 appliances are under the voluntary regime. During the financial year 2019-20, this programme has resulted in electricity savings to the tune of 65 Billion Units.

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- (ii) In order to promote energy efficiency in residential building sector, the residential building energy conservation code (ECBC-R) and labelling programme for residential building have been developed. In addition, “ECO-NIWAS” Portal has been developed to raise awareness and make people understand the energy efficiency measures in buildings.

2. Agriculture Sector

- (i) In order to tap the energy saving potential, Demand Side Management (DSM) programmes was initiated in Agriculture sector with an objective to induce energy efficiency. Till February 2021, 155 training workshops and 508 awareness programmes have been conducted by State Designated Agencies (SDAs) through Krishi Vigyan Kendras (KVKs)/ Agriculture Training and Research Institute (ATARI), resulting in training of more than 11,000 farmers.
- (ii) In addition, Star Rating program for Agricultural pumpsets under Voluntary phase has been developed.
- (iii) EESL has been implementing Agricultural Demand Side Management (AgDSM) Programme, which was launched on 7th April 2016, to distribute BEE 5-star energy efficient agricultural pumps to ensure a minimum of 30% reduction in energy consumption with smart control panels which can be remotely operated, to enhance the ease of operation of pumps by the farmers. AgDSM aims to replace 21 million inefficient electrified pump sets in India with highly efficient BEE 5-star rated pump sets.

3. Commercial Sector

- (i) To promote energy efficiency in new commercial buildings the Energy Conservation Building Code (ECBC) has been prescribed. Implementation mandate of building energy efficiency lies at the State level through its integration in the Municipal bye-laws. Till February 2021, 18 States and UTs have notified ECBC in their States and 48 Urban Local Bodies (ULBs) from 8 States have incorporated provisions of ECBC for building approval process.
- (ii) For existing commercial buildings, there is a Star Rating Program in place which is based on the energy usage in the building over its area expressed in kWh/sqm/year. This programme rates buildings on 1-5 scale, with 5 star labelled buildings being most efficient. As on 1st March, 2021, 264 buildings have been star rated.
- (iii) A programme for capacity building of DISCOMs has also been developed. The objective of the programme is to undertake capacity building of DISCOM officials for carrying out load management programme, energy conservation programme, development of Demand Side Management (DSM) action plan and implementation of DSM activities in their respective areas. 62 DISCOMs have participated as beneficiary DISCOMs. 950 numbers of senior officials of 28 DISCOMs have been developed as master trainers and 2560 circle level officials have undergone training on Demand Side Management (DSM) and Energy Efficiency topics.

4. Buildings Energy Efficiency Programme (BEEP) of EESL

Building Energy Efficiency Program (BEEP) was launched to implement energy efficiency measures in Government buildings across India. Under this Program 10,451 buildings have been retrofitted with energy efficient equipment like LED Lights, 5 Star rated fans and super-efficient air-condition. Under this Programme, energy efficiency measures have been implemented in approx. 7,000 railway stations/service buildings and approx. 66 Airports' buildings.

The energy savings on account of above interventions are as under:

Year	Energy savings per year (Units)
2018	22,40,21,105
2019	23,52,22,160
2020	24,69,83,268

5. Unnat Jyoti by Affordable LEDs for All (UJALA)

Unnat Jyoti by Affordable LEDs for All (UJALA) was launched on 5th January, 2015 as an attempt to provide energy efficient LED bulbs to consumers. As on date 36.72 Crore LED bulbs have been distributed under UJALA programme. This has resulted in energy saving of 47,691 million units of electricity per annum, peak demand reduction of 9,548 MW and 38.62 million tonnes of CO₂ emission reduction annually.

6. Street Lighting National Programme (SLNP)

Street Lighting National Programme (SLNP) was launched to replace conventional street lights with smart and energy efficient LED street lights across India. Till date, EESL has installed over 1.15 crore LED street lights in Urban Local Bodies (ULBs) and Gram Panchayats across India. This has resulted in estimated energy savings of 7.75 billion units kWh per year with avoided peak demand of about 1,300 MW, GHG emission reduction of 5.33 million t CO₂ per year and estimated annual monetary savings of Rs.5,523 crore in electricity bills of municipalities.

(d): In accordance with the provisions of the Energy Conservation Act 2001, the Government has notified Industrial units/Establishments as 'Designated Consumers' (DCs). All notified DCs are required to get an energy audit done as per the methodology specified in the Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations, 2010.

(e): For conservation of electricity and other forms of energy, the DCs are assigned energy efficiency targets over a period of 3 years which have to be mandatorily complied under a scheme called Perform, Achieve and Trade (PAT). Non-compliance to achieving the notified target attracts penalty under the provisions of the Energy Conservation Act, 2001. In this regard, the DCs adopt energy / electricity conservation measures by installing energy efficient technologies, equipment and also improve their operations and maintenance practices.
