GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.607
TO BE ANSWERED ON 04.02.2021

ENERGY EFFICIENCY UNDER BUILDING CODES

607. SHRI JASBIR SINGH GILL:

Will the Minister of POWER
be pleased to state:

(a) whether India's building codes encourage the use of energy efficient equipments for housing and construction and if so, the details thereof;

(b) the incentives provided to builders to use energy efficient equipments in buildings and if so, the details thereof;

(c) whether the Government has held any awareness drives among builders to increase awareness about importance of energy efficiency and if so, the details thereof;

(d) whether there exists a performance certification and rating system to evaluate energy efficiency of appliances and if so, the details thereof;

(e) whether the Government has pursued inter-Ministerial collaboration to increase finance for builders that use energy efficient equipments; and

(f) if so, the details thereof and if not, the reasons therefor?

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) & (b) : Government of India have prescribed the Energy Conservation Building Code (ECBC) which specifies minimum requirements for energy-efficient design and construction of commercial buildings. This Code is applicable to buildings or building complexes which have a connected load of 100 kW or greater or a contract demand of 120 kVA or greater. The provisions of this Code apply to building envelopes; mechanical systems and equipment including heating, ventilating and air conditioning; interior and exterior lighting; and electrical power and motors, and renewable energy systems.

Further, Ministry of Power has launched Eco Niwas Samhita (ENS), which prescribes minimum requirements for the energy-efficient design and construction of buildings for residential purpose.

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Besides, the Ministry of Housing & Urban Affairs, Government of India has prescribed National Building Code – 2016 (NBC), CPWD Green rating Manual - 2019 and Eco Niwas Samhita 2019, for use by CPWD to encourage use of energy efficient materials.

At present, there is no scheme to provide incentives to builders for using energy efficient equipments in buildings.

(c) : In order to generate awareness about ECBC, Bureau of Energy Efficiency (BEE), a statutory body under the Ministry of Power has organized 572 ECBC training programmes and 366 awareness webinars, for benefit of various stakeholders such as developers, builders, architects and engineers. Further, more than 100 awareness generation programmes on ENS have been conducted by BEE for developers, builders and architects.

National Housing Bank (NHB), a statutory body under Government of India, has also conducted 7 Training and promotional events under capacity building initiative to promote awareness on green housing with all stakeholders.

(d) : BEE has been implementing Standards and Labeling (S&L) Programme, which aims at providing consumers an informed choice regarding the energy saving potential of various energy consuming appliances. This Programme prescribes minimum energy performance levels for appliances/equipment, rated on a scale of 1 to 5 Star with 5 Star being the most energy efficient ones. As on date, 28 appliances are covered under S&L Programme, out of which 10 appliances are under mandatory regime and remaining 18 are under voluntary regime. The details of appliances covered under S&L Programme are given at Annexure.

Further, Bureau of Indian Standard (BIS) has published several Indian Standards for appliances and equipment, wherein requirements for Energy Efficiency are specified, which are briefly listed as under:-

- **IS 12615:2018 Line operated three phase AC motors (IE code) "Efficiency classes and performance specification" (*third revision*);**
- **IS 1391 (Part 1): 2017 Room air conditioners - Specification: Part 1 Unitary air conditioners (*third revision*);**
- **IS 1391 (Part 2): 2018 Room air conditioners - Specification: Part 2 Split air conditioners (*third revision*); IS 8148: 2018 Ducted and package air - Conditioners – Specification (*second revision*); and**
- **IS 16590:2017 Water-cooled chilling packages using the vapour compression cycle – Specification.**

These Indian Standards specify the energy efficiency requirements as well as methods to measure the same. Further, use of equipment as per the latest version of above standards has been prescribed in NBC 2016.

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(e) & (f) : NHB had signed an agreement with KfW, Germany in the year 2010, for financing "Energy Efficient New Residential Housing" in India. Under which, a line of credit of Euro 50 million was extended to the NHB. These funds were used for 2000 housing loans extended by various Primary Lending Institutions (PLIs) for energy efficient units aggregating to approximately Rs. 380 crore.

NHB has also signed a Credit Facility Agreement and Financing Agreement with Agence Française de Développement (AFD), France, for availing a Line of Credit of EUR 100 million and EUR 12 million under Technical Assistance grant for a project namely "Sustainable Use of Natural Resources and Energy Finance (SUNREF) Housing India". SUNREF India Programme focuses on making green housing more affordable to low and middle income households, promoting the existing local green labels for housing and demonstrating the market potential and the relevance of green housing in Indian context. Under this Programme, NHB has two refinance schemes, wherein over Rs.481 crore have been disbursed.

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ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 607 TO BE ANSWERED IN THE LOK SABHA ON 04.02.2021.

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Appliances covered under S&L Programme

S. No.	Mandatory Appliances	Sl. No.	Voluntary Appliances
1.	Room Air Conditioners	1.	Induction Motors
2.	Frost Free Refrigerator	2.	Agricultural Pump Sets
3.	Tubular Florescent Lamp	3.	Ceiling Fans
4.	Distribution Transformer	4.	Liquefied Petroleum Gas (LPG)-Stoves
5.	Room Air Conditioner (Cassette, Floor Standing)	5.	Washing Machine
6.	Direct Cool Refrigerator	6.	Computer (Notebook/ Laptops)
7.	Color TV	7.	Ballast (Electronic/ Magnetic)
8.	Electric Geysers	8.	Office Equipment (Printer, Copier, Scanner, Multifunctional Display)
9.	Variable Capacity Inverter Air Conditioners	9.	Diesel Engine Driven Mono-set pumps, submersible and open-well
10.	LED Lamps	10.	Solid State Inverter
		11.	Diesel Generator Sets
		12.	Chillers
		13.	Microwave oven
		14.	Solar Water Heater
		15.	Light Commercial Air Conditioners
		16.	Deep Freezers
		17.	Air Compressors
		18.	Ultra High Definition TV

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