

**GOVERNMENT OF INDIA  
POWER  
LOK SABHA**

UNSTARRED QUESTION NO:5499  
ANSWERED ON:06.04.2017  
New Power Plants  
Kachhadia Shri Naranbhai

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

- (a) the details of the various measures being taken by the Government to encourage energy efficiency;
- (b) whether the Government is of the view that efforts should be made to reduce carbon emission;
- (c) if so, the details thereof;
- (d) whether the Government is likely to make efforts to set up energy efficient super critical power plants equipped with state-of-the-art technology in place of all the old inefficient thermal power plants; and
- (e) if so, the details of the action taken so far in this regard?

**Answer**

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

( SHRI PIYUSH GOYAL )

(a) : The details of the various measures being taken by the Government to encourage energy efficiency are as follows:-

- (i) Standards & Labeling programme for appliances to provide the consumer an informed choice about the energy saving and thereby the cost saving potential of the relevant marketed product.
- (ii) Prescription of Specific energy consumption norms for energy intensive industries notified as designated consumers and implemented through Perform, Achieve and Trade (PAT) Scheme.
- (iii) Formulation of Energy Conservation Building Code (ECBC) for energy efficiency improvement in commercial buildings.
- (iv) Design-guidelines for energy efficiency in multi-storied residential buildings.
- (v) Demand Side Management (DSM) in Municipal, Household, Agriculture and Small & Medium Enterprises (SME) sectors.
- (vi) Promotion of energy efficient LED lamps through DSM based Unnat Jyoti by Affordable LEDs for All (UJALA) & Street Lighting National Programme (SLNP).
- (vii) Promotion of Energy Efficient Fans and Agriculture pumpsets.
- (viii) Nation-wide campaign for Energy Conservation and Efficiency.

(b) & (c) : India in its Nationally Determined Contributions (NDCs) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) on 02.10.2016 has communicated to reduce Green House Gas (GHG) emissions intensity of its Gross Domestic Product (GDP) by 33 to 35 percent by 2030 from 2005 level, achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 and create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.

(d) & (e) : In order to promote use of Super Critical and Ultra Super Critical Technology in thermal power plants, the following measures have been taken:

- (i) Super critical technology is already being adopted for thermal power plants. All Ultra Mega Power Projects (UMPPs) are required to use super critical technologies. Generation capacity of 39710 MW based on super critical technology has already been implemented. Additional capacity of 48060 MW of super critical thermal power plants is under construction.
- (ii) Ultra super critical technology is also being adopted by some power stations. Khargone Thermal Power Plant (2x660 MW) of NTPC, being set up in Madhya Pradesh, is based on Ultra Super Critical Technology.
- (iii) Indigenous research is also ongoing for development of Advanced Ultra Super Critical Technology (A-USC). Indira Gandhi Centre for Atomic Research (IGCAR), NTPC and BHEL have signed an MoU for development of 800 MW A-USC indigenous demonstration

plant.

(iv) Phased retirement of inefficient and old thermal power plants is also being carried out. Old thermal capacity of about 7751.94 MW has already been retired.

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