

**GOVERNMENT OF INDIA  
POWER  
LOK SABHA**

UNSTARRED QUESTION NO:5410  
ANSWERED ON:06.04.2017  
Reduction of Pollution  
Adityanath Shri Yogi

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

- (a) whether the Government is working on any special plan for reducing the pollution level of coal-based thermal power plants in the country;
- (b) if so, the details thereof; and
- (c) the steps taken by the Government for modernisation of the thermal power plants?

**Answer**

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

( SHRI PIYUSH GOYAL )

(a) to (c) : The steps taken by Government to modernize and improve the efficiency of coal based thermal power plants and to reduce the pollution level of coal based thermal power plants in the Country, in the vicinity of these plants, are as under:

(i) Supercritical technology has already been adopted for thermal power generation. The design efficiency of Supercritical units is about 5% higher than that of typical 500 MW subcritical units and these (supercritical) units are likely to have correspondingly lower fuel consumption and CO<sub>2</sub> emissions in ambient air. A capacity addition of 39,710 MW power based on supercritical technology has already been achieved and 48,060 MW of supercritical technology is in the pipeline.

(ii) All Ultra Mega Power Projects (UMPPs) are required to use supercritical technology.

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(iii) Coal based capacity addition during the 13th Plan period shall be through super-critical units.

(iv) Indigenous research is being pursued for development of an Advanced Ultra Supercritical Technology (A-USC) with targeted efficiency improvement of about 10% over supercritical unit. Indira Gandhi Centre for Atomic Research (IGCAR), NTPC Ltd. and BHEL signed an MoU, in August 2010, for development of 800 MW A-USC indigenous demonstration plant with main steam pressure of 310 kg/cm<sup>2</sup> and temperature of 710/ 720 deg C.

(v) A capacity of about 7751.94 MW of old and inefficient unit has already been retired till date.

(vi) To facilitate State Utilities/IPPs to replace old inefficient coal based thermal units with supercritical units, Ministry of Coal, Government of India has formulated a policy of automatic transfer of Letter of Assurance (LOA)/Coal linkage (granted to old plants) to new (proposed) super-critical units.

(vii) Perform Achieve and Trade (PAT) Scheme under National Mission on Enhanced Energy Efficiency is under implementation by BEE (Bureau of Energy Efficiency). In PAT cycle-II, individual target for improving efficiency has been assigned to 154 thermal power stations.

(viii) High efficiency Electrostatics Precipitator (ESP) are installed to capture Particulate Matters from Flue gases.

(ix) Low NO<sub>x</sub> burners are installed for reducing NO<sub>x</sub> emission from flue gases.

(x) SO<sub>2</sub> emission control is achieved through dispersion of flue gases through tall stacks (275 metres) to reduce the concentration of polluting gases at ground level.

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