

**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.1665  
TO BE ANSWERED ON 28.11.2019**

**POWER PLANTS EQUIPPED WITH POLLUTION CONTROL SYSTEMS**

**1665. MS. RAMYA HARIDAS:**

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

- (a) whether the thermal power stations are major contributors of pollution in the country and if so, the details thereof;**
- (b) whether several such stations under the Union and State Governments are unable to arrange pollution control equipment due to lack of funds;**
- (c) if so, the details thereof;**
- (d) the total number of thermal power stations that are equipped with proper pollution control systems along with the details of those which are yet to be equipped with the said systems, State/ UT-wise; and**
- (e) the estimated expenditure to upgrade them?**

**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 (d) : Stringent emission control norms have been laid down for Thermal Power Plants (TPPs) and only such TPPs which meet these norms are permitted to operate. All the thermal power plants as on date are equipped with appropriate pollution control technology in order to meet these norms.**

**A revised set of emission control norms were promulgated by Ministry of Environment, Forest and Climate Change (MOEF&CC) in December 2015. A phasing plan has been laid down with the approval of Central Pollution Control Board (CPCB) and Honb'le Supreme Court for the installation of the additional equipment in order to meet the revised emission norms. The Central Electricity Authority (CEA) is monitoring the implementation of the phasing plan for the installation of the additional equipment in the thermal power plants. The State-wise detail (no. of units) where installation of FGD is planned is given at Annexure.**

**.....2.**

The financing for the installation of the additional pollution control equipment for the thermal power plants is made available by the Power Finance Corporation (PFC), Rural Electrification Corporation Ltd. (REC) and the commercial Banks.

(e) : CEA has informed that the estimated expenditure for upgradation/ installation of the pollution control equipments to implement the Environmental Norms are as under:

<b>Equipment</b>	<b>Estimated Capital Cost (Hard Cost) Rs. Crores per MW</b>
<b>Flue Gas Desulphurization (FGD)</b>	<b>0.27-0.45</b>
<b>Electro-Static Precipitator(ESP) upgradation</b>	<b>0.13</b>
<b>Combustion optimization/ modification measures to control NOx</b>	<b>0.013</b>

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 1665 TO BE ANSWERED IN THE LOK SABHA ON 28.11.2019.**

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**State-wise details (no. of units) where installation of FGD is planned**

<b>State</b>	<b>Capacity (MW)</b>	<b>No. of units</b>
<b>Andhra Pradesh</b>	<b>9430</b>	<b>19</b>
<b>Bihar</b>	<b>5270</b>	<b>17</b>
<b>Chhattisgarh</b>	<b>20430</b>	<b>46</b>
<b>Gujarat</b>	<b>12127</b>	<b>35</b>
<b>Haryana</b>	<b>5330</b>	<b>12</b>
<b>Jharkhand</b>	<b>4250</b>	<b>13</b>
<b>Karnataka</b>	<b>9220</b>	<b>20</b>
<b>Madhya Pradesh</b>	<b>15190</b>	<b>34</b>
<b>Maharashtra</b>	<b>19790</b>	<b>54</b>
<b>Odisha</b>	<b>7080</b>	<b>21</b>
<b>Punjab</b>	<b>5680</b>	<b>15</b>
<b>Rajasthan</b>	<b>6280</b>	<b>18</b>
<b>Tamil Nadu</b>	<b>7670</b>	<b>22</b>
<b>Telangana</b>	<b>5400</b>	<b>12</b>
<b>Uttar Pradesh</b>	<b>20880</b>	<b>60</b>
<b>West Bengal</b>	<b>12445</b>	<b>42</b>
<b>Grand Total</b>	<b>166472</b>	<b>440</b>

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