GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.151
ANSWERED ON 03.02.2025

INSTALLATION OF FGDs SYSTEMS IN TPPs

151 SHRI RANDEEP SINGH SURJEWALA:

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

(a) whether it is a fact that NITI Aayog has recommended against the necessity of Flue Gas Desulphurization (FGD) systems in thermal power plants (TPPs), if so, Government's stand on the installation of FGDs;

(b) whether the installation of FGDs in thermal power plants has posed a potential additional cost burden on consumers of 55 paisa to one rupee per unit, given its high installation cost, if so, the details thereof; and

(c) the total pass of burden to consumers through additional cost per annum for installation of FGDs in all Government owned thermal power plants?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) to (c) : All Thermal Power Plants (TPPs) are required to comply with the emission norms as notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC) and directions given by Central Pollution Control Board (CPCB) from time to time. MoEF&CC notification dated 07.12.2015, 31.03.2021, 05.09.2022 and 30.12.2024 have stipulated stack emission norms [including for Sulfur Di-oxide (SO2)] and timelines for compliance in respect of coal based TPPs, categorized as Category-A, B and C.

In order to meet the SO_2 emission norms and timelines notified by MoEF&CC, Flue Gas Desulphurization (FGD) systems are being installed in coal based TPPs. Total 537 Units [2,04,160 Mega Watt (MW)] have been identified for installation of FGDs in TPPs. Out of these, FGD installation has been completed in 49 Units (25,590 MW), contracts awarded / under implementation in 211 Units (91,880 MW), 180 Units (58,997 MW) are under various stages of tendering process and 97 Units (27,693 MW) are under pre-tendering process.

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NITI Aayog, through CSIR-NEERI, Nagpur, has conducted a study titled as “Analysis of historical ambient air quality data across India for developing a decision support system”. The aim of the study is to analyze the SO2 emission from coal-based Thermal Power Plants (TPPs) using continuous ‘Ambient Air Quality Monitoring System (CAAQMS) data, Online Continuous Emission Monitoring System (OCEMS) data through the air pollutant emission dispersion modelling study using prognostic model to drive a decision support system. The recommendation of the study report is under the consideration of MoEF&CC.

The capital and operating costs of FGD systems vary from plant to plant, depending upon availability of space and size of Units. Standardization cannot be done as different sites have different requirements in terms of layout and orientation. Therefore, the cost of installation of FGD systems vary in the range of approximately Rs 0.85 Crore to Rs 1.2 Crore per MW.

Further, the impact on tariff varies from Unit to Unit based on technology implied in FGD System, Unit size, Unit availability, energy scheduled from Unit, cost of reagents used in FGD Systems such as limestone etc. Taking into account all of above and considering FGD capital cost as Rs 1.2 Cr / MW, the effective increase in tariff has been estimated as 55.72 Paise/kWh (first year) and 48.67 Paise/kWh (levelized).

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