

GOVERNMENT OF INDIA
MINISTRY OF POWER
RAJYA SABHA
UNSTARRED QUESTION NO. 3184
ANSWERED ON 28.03.2023

STEPS TO REDUCE INDUSTRIAL EMISSION

3184 SHRI AKHILESH PRASAD SINGH:

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

- (a) the details regarding industrial emissions by thermal power companies during the last five years, year-wise;
- (b) whether it is a fact that the Ministry has sought a two-year extension from the Ministry of Environment, Forest and Climate Change for utilities to install emission cutting equipment;
- (c) if so, the details thereof; and
- (d) the steps taken to reduce emissions by thermal power companies during the last five years?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : The details regarding Carbon Dioxide (CO₂) emissions by Thermal Power Stations in Metric Ton per Mega Watt hour (MWh) generation for the last five years is as follows:

Year	CO₂ Emission (tCO₂/MWh)
2017-18	0.9598
2018-19	0.9648
2019-20	0.9603
2020-21	0.9493
2021-22	0.9675

(b) & (c) : Due to the COVID-19 pandemic, the entire process of planning, tendering and implementing the Flue Gas De-sulphurisation (FGD) was badly affected. The utilities were facing fund constraints and the lenders response had not been encouraging mainly due to poor financial conditions of the DISCOMs leading to poor payment position to GENCOs. The geopolitical conditions had also affected the import of certain components of FGD which are not manufactured in India which has also led to disruption in supply. Therefore, Ministry of Power (MoP) had requested Ministry of Environment, Forest and Climate Change (MoEF&CC) on 03.05.2022 to provide additional time period of two years to Thermal Power Plants over and above the timelines in

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the MoEF&CC Notification dated 31.03.2021, for installation of Flue Gas De-sulphurisation (FGD). Subsequently, MoP requested MoEF&CC on 29.07.2022 for phased implementation of FGD in the manner (5 Phases upto July 2034), as recommended by IIT Delhi in a study commissioned by MoP to assess the compliance of Thermal Power Plants in India to new emission norms.

MoEF&CC vide its Notification dated 05.09.2022 has granted two year extension to the timeline for implementation of FGD by TPPs.

(d) : The following steps are taken to reduce emission by Thermal Power Companies during the last five years:

- i. The Thermal Power Stations are required to meet the environmental pollution standard set by MoEF&CC from time to time.
- ii. Many TPPs have already adopted use of efficient technologies i.e. from subcritical to supercritical and now using ultra-supercritical technology in order to improve efficiency, thereby reducing coal consumption and thereby reducing emissions. A total capacity of Supercritical and Ultra-supercritical units of 63170 MW (91 supercritical Units) and 1320 MW (2 ultra supercritical units) have been commissioned till 13.03.2023.
- iii. The capacity of about 18362.24 MW comprising 260 units of inefficient and old thermal power generation units has already been retired till 31.12.2022.
- iv. Ministry of Power on 08.10.2021 has issued revised policy on Bio-mass Utilization for Power Generation through Co-firing in Coal based Power Plants to use 5-10% blend of biomass pellets made, primarily of agro-residue alongwith coal after assessing the technical feasibility viz. safety aspect, etc.
- v. Thermal Power Plants of total capacity of about 181 GW is covered under **Perform, Achieve, Trade (PAT)** Scheme and they are given mandatory targets to reduce their specific energy consumption i.e. Net Heat Rate (kcal/kwh).
- vi. As per revised Nationally Determined Contribution (NDCs) submitted to United Nation Framework Convention on Climate Change (UNFCCC) in August, 2022, India's target is to achieve about 50 percent cumulative electric power installed capacity by 2030 from non-fossil fuel-based energy resources to reduce the Green House Gases (GHGs) emissions.
