

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.579
TO BE ANSWERED ON 13.12.2018**

ENVIRONMENTAL RATING OF THERMAL POWER PLANTS

579. SHRI JAGDAMBIKA PAL:

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

(a) whether the Ministry have taken the cognizance of the study conducted by the Centre for Science and Environment (CSE) on the environmental rating of Indian thermal power plants, if so, the details thereof;

(b) whether the Indian thermal power plants are one of the most polluting in the country, if so, the reasons therefor; and

(c) the details regarding thermal power plants run by National Thermal Power Corporation Limited in terms of (i) Average efficiency of the plants; (ii) Average CO₂ (carbon dioxide) emissions; (iii) Average water consumption; (iv) Level of Particulate Matter released in the air; and (v) Level of utilization of solid waste (ash) generated?

A N S W E R

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER
AND NEW & RENEWABLE ENERGY**

(SHRI R. K. SINGH)

(a) : The Centre for Science and Environment in its report "Green rating of coal based Thermal Power plants" has, inter alia, given, the following suggestions to improve the performance of coal based power plants:

- i. Accelerating installation of supercritical/ultra-supercritical (SC/USC) plants.**
- ii. Retirement of old and inefficient plants.**
- iii. Introduction of tighter air pollution norms.**
- iv. Optimization of water and land use in coal based thermal power plants.**

(b) : The efficiency of Thermal Power Plants in the country is comparatively lower than other countries due to inferior quality of coal and higher ambient air temperature and higher cooling water temperature in India. The Carbon dioxide (CO₂) emission from Thermal Power Plants in the country is comparatively higher than the global standards due to inferior quality of coal and higher ambient air temperature and cooling water temperature in India resulting in more consumption of coal.

(c) : The details regarding coal based power plants run by NTPC for FY 2017-18 are given below:

| Sl. No. | Parameter | Coal Stations |
|----------------|--|--------------------------------------|
| (i) | Average efficiency of the plants | 35.9% |
| (ii) | Average CO₂ (carbon dioxide) emissions | 0.971 tCO₂/Mwh |
| (iii) | Average water consumption | 3.098 Litre/Kwh |
| (iv) | Level of Particulate Matter released in the air | 0.27 gm/Kwh |
| (v) | Level of utilization of solid waste (ash) generated | 53.45% |
