

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.5433
ANSWERED ON 03.04.2025**

AVERAGE ENERGY EFFICIENCY OF TPPS

**5433. SHRI PUTTA MAHESH KUMAR:
SHRI MAGUNTA SREENIVASULU REDDY:**

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

- (a) whether the Government has conducted any study/survey regarding the energy efficiency of Thermal Power Plants (TPPs) in the country during the last five years;**
- (b) if so, the details and the average energy efficiency thereof;**
- (c) the details of the steps taken/being taken to increase energy efficiency and output of thermal power plants across the country especially in Andhra Pradesh; and**
- (d) whether the Government has considered for upgrading the existing technology in thermal power plants to increase efficiency across the country and if so, the details thereof?**

A N S W E R

**THE MINISTER OF STATE IN THE MINISTRY OF POWER
(SHRI SHRIPAD NAIK)**

(a) & (b): As per the report of Central Electricity Authority, the all India thermal efficiency of coal and lignite based plants is 35.02 % in the year 2022-23. The all India thermal Efficiency of Coal & Lignite Based Plants for the years 2018-19 to 2022-23 are given below:

Year	Efficiency (%)
2018-19	35.62
2019-20	35.69
2020-21	35.88
2021-22	35.11
2022-23	35.02

(c) & (d) : To improve the energy efficiency in Thermal Power Plants (TPPs), the TPP sector has been included under the PAT scheme. This scheme stipulates improvement in the heat rate of TPPs in a cycle of 3 years. This scheme covers a total capacity of 184 GW including 11.2 GW capacity of TPPs in Andhra Pradesh. As a result of implementation of the scheme, the TPP sector has achieved energy savings of 7.73 million tonnes of oil equivalent (MToE) including 0.146 MToE in Andhra Pradesh.

Power generation is a de-licensed activity and promoters of TPPs take conscious decision in regard to suitable technologies for their TPPs. However, Ministry of Power encourages installation of efficient Super-critical/ Ultra Super-critical units over sub-critical coal based thermal units as these units are more efficient than sub-critical units.

As on 28.03.2025, 98 super critical units totaling to 68,070 MW and 8 Ultra Supercritical units totaling to 5,560 MW have been installed in the country including 8 super critical units with total capacity of 5,840 MW in Andhra Pradesh.
