

GOVERNMENT OF INDIA  
MINISTRY OF POWER  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO.1110**  
ANSWERED ON 26.07.2022

**ELECTRICITY GENERATION FROM VARIOUS SOURCES**

**1110 DR. ASHOK KUMAR MITTAL:**

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

- (a) the details of the percentage of electricity generated from various sources such as coal, hydel, thermal and renewable energy in the last three years;
- (b) whether use of electricity generated from coal increases pollution, if so, the details thereof;
- (c) whether Government is contemplating to take any step to minimize pollution; and
- (d) if so, the details thereof and if not, the reasons therefor?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) :** The details of the percentage of electricity generated from sources such as Thermal, Nuclear, Hydro and Renewable sources in the country during the last three years and current year (up to June, 2022) are given at **Annexure**.

**(b) to (d) :** The flue gases from combustion of the coal in the power plants contain carbon dioxide and water vapor, as well as other gases such as nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), mercury, and particulate matter.

Ministry of Environment, Forest and Climate Change (MoEF&CC) vide gazette notification dated 07.12.2015 has introduced environmental standards including SO<sub>2</sub>, NO<sub>x</sub> and Mercury etc. for coal-based TPPs under amendment to the Environment (Protection) Rules 1986. Further, MoEF&CC vide gazette notification dated 31.03.2021 categorized thermal power plants in three categories having different timelines along with the penalty for non-compliance.

The Pollution Control Boards take necessary action against non-compliant plants.

\*\*\*\*\*

**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION  
NO. 1110 ANSWERED IN THE RAJYA SABHA ON 26.07.2022**

\*\*\*\*\*

The details of the percentage of electricity generated from sources such as Thermal (coal, lignite, gas etc.), Nuclear, Hydro and Renewable sources in the country during the last three years and current year (up to June, 2022)

Category	Fuel	2019-20		2020-21		2021-22		2022-23 (up to June)*	
		Generation (MU)	% of share	Generation (MU)	% of share	Generation (MU)	% of share	Generation (MU)	% of share
<b>THERMAL</b>	COAL	961218.2	69.2	950937.6	68.8	1041487.4	69.8	307947.5	71.4
	LIGNITE	32978.8	2.4	30505.7	2.2	37094.0	2.5	10130.1	2.4
	NATURAL GAS	48442.6	3.5	50944.0	3.7	36015.7	2.4	7515.5	1.7
	DIESEL	108.2	0.0	126.3	0.0	117.2	0.0	31.8	0.0
<b>Total THERMAL</b>		1042747.9	75.1	1032513.5	74.7	1114714.4	74.7	325625.0	75.5
<b>NUCLEAR</b>		46472.5	3.3	43029.1	3.1	47112.1	3.2	10860.1	2.5
<b>HYDRO</b>		155769.1	11.2	150299.5	10.9	151627.3	10.2	38271.5	8.9
<b>Renewable (other than large hydro)</b>		138337.0	10.0	147247.5	10.7	170912.3	11.5	54587.6	12.7

\* Tentative

Note: Gross Generation from Renewable sources (Wind, Solar, Biomass, bagasses, Small Hydro and Others)

\*\*\*\*\*