

GOVERNMENT OF INDIA
MINISTRY OF POWER
RAJYA SABHA
STARRED QUESTION NO.138
ANSWERED ON 14.03.2023

**BENEFITS OF CO-FIRING BIOMASS PELLETS IN
THERMAL POWER PLANTS**

138 DR. AMAR PATNAIK:

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

- (a) whether Government has carried out experiments ascertaining the benefits of co-firing biomass pellets in thermal power plants to reduce reliance on coal and mitigate air pollution due to stubble burning;
- (b) if so, the details thereof, and if not, the reasons therefor;
- (c) whether there is a detailed strategy, project, or programme in place for the production of biomass pellets to be used for co-firing in thermal power plants; 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) to (d) : A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO.138 ANSWERED IN THE RAJYA SABHA ON 14.03.2023 REGARDING BENEFITS OF CO-FIRING BIOMASS PELLETS IN THERMAL POWER PLANTS.

(a) & (b) : Experiments were carried out by NTPC-NETRA in NTPC Dadri coal based thermal power plant to ascertain the impact of co-firing biomass on the Thermal Power Plants (TPPs). Through the studies, it has been well established that 5% to 10% of biomass can be safely co-fired with coal in TPPs without any adverse impact on the power plant. This has helped in reducing reliance of TPPs on coal and mitigates air pollution cause due to stubble burning, to some extent.

So far around 97000 Metric Tonnes (MT) of agro-residue based biomass has been co-fired in coal based thermal power plants, leading to reduction of more than 1.2 Lakh Metric Tonnes (LMT) carbon dioxide emission.

(c) & (d) : To address the burning issue of air pollution particularly in National Capital Region (NCR) due to farm stubble burning and to reduce carbon footprints of thermal power generation, the Ministry of Power launched the National Mission on use of Biomass in Thermal Power Plants (SAMARTH) on 12th July 2021 and the revised biomass policy was issued on 8th October, 2021, mandating all TPPs in the country to use 5% of biomass pellets in the co-firing with coal. Government has also taken the following steps:

- (i) A customized window has been made available on the GeM portal for Biomass pellet procurement.
- (ii) Biomass has been notified under Priority Sector lending by the RBI. This would enable easier & faster availability of bank loans to the pellet manufacturers. The State Bank of India has launched a dedicated scheme to provide long term loan to pellet manufacturers.
- (iii) Following Financial Subsidy Schemes have been issued by Central Pollution Control Board (CPCB) and Ministry of New & Renewable Energy (MNRE) to encourage the new entrepreneurs:
 - i. MNRE Scheme “Biomass Programme” provides assistance to set up the biomass pellet plant.
 - ii. CPCB guidelines “One-time financial assistance scheme for setting up pellets plant in NCR “

For providing financial assistance for setting up biomass pellet manufacturing plants, schemes envisaged are (a) MNRE Bio Energy Schemes in which Pellet Manufacturing plants will be provided with Rs. 9 Lakh per MTPH (Metric Ton Per Hour) of Rs. 45 Lakhs per plant as Central Financial Assistance (b) CPCB financial support under Environment Protection Charge (EPC) funds for Non-torrefied plant set up by a one time support of Rs. 14 Lac per ton of production capacity per hour subject to a ceiling of Rs. 70 Lacs and for Torrefied plant set up a one-time capital support of Rs. 28 Lac per ton of production capacity per hour subject to a ceiling of Rs 1.40 Crores. A corpus of Rs. 50 crores has been earmarked for utilisation through the guidelines.
