

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.1436
ANSWERED ON 01.08.2023

SAMARTH MISSION TO REDUCE AIR POLLUTION FROM STUBBLE BURNING

1436 #SHRI SURENDRA SINGH NAGAR:
SHRI MOHAMMED NADIMUL HAQUE:
DR. FAUZIA KHAN:

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

- (a) whether Government has information on the number of power plants successfully implementing the mandate to use 5 per cent biomass pellets in co-firing with coal, as per the revised biomass policy;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether Government has taken any initiatives to ensure the availability and procurement of biomass pellets for co-firing in Thermal Power Plants (TPPs); and
- (d) if so, the agri residues-based biomass that has been co-fired in coal based thermal power plants in metric tonnes till May 2023, along with State/UT-wise details 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) & (b) : There are 47 number of Thermal Power Plants which have carried out co-firing of agro residue based biomass pellets with coal. Ministry of Power issued modification on 16.06.2023 to revise the biomass policy dated 08.10.2021 and now it mandates 5% biomass co-firing in Thermal Power Plants (TPPs) from FY 2024-25. This obligation shall increase to 7% from FY 2025-26.

(c) : The Government has taken many initiatives to ensure the availability and procurement of biomass pellets for co-firing in TPPs like, Finance Assistance Schemes by MNRE and CPCB have been issued for biomass pellet manufacturing units, Reserve Bank of India (RBI) has approved 'Biomass pellet manufacturing' as an eligible activity under Priority Sector Lending (PSL), Procurement Provision of Biomass Category has been created on GeM portal, Revised Model long term contract for Biomass supply was issued by MOP, Vendor database finalized and listed on SAMARTH website, awareness programmes & Advertisement Campaign were carried out, Provision of Udyam Aadhaar on National Single Window System, Bankable Model Project Report for Biomass Pellet Plants etc.

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Further, MoP through a policy Addendum dated 03-05-2023 has indicated the various type of various agro residues such as stubble/straw/stalk/husk which are surplus and not being used as animal fodder for making the biomass pellets. This includes agro-residue obtained from crops like Paddy, Soya, Arhar, Gwar, Cotton, Gram, Jawar, Bajra, Moong, Mustard, Sesame, Til, Maize, Sunflower, Jute, Coffee, etc. as well as Groundnut Shell, Coconut Shell, Castor Seed Shell etc.

In addition, pellets made from the following agro product/crop/waste can also be used for co-firing in TPPs viz Bamboo and its by-products, Horticulture waste such as dry leaves and trimmings obtained from maintenance & pruning of trees and plants and other biomass such as Pine Cone/Needle, Elephant Grass, Sarkanda, etc.

(d) : Approximately 1,64,976 Metric Tonnes of agri residues-based biomass has been co-fired in 47 number of coal based thermal power plants till May 2023. State-wise list of thermal power plants co-firing above biomass pellets is at **Annexure**.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1436 ANSWERED IN THE RAJYA SABHA ON 01.08.2023

State-wise details of Biomass usage in all TPPs in the country till May' 2023

Sl. No.	State	Name of the Plant	Capacity (MW)	Cumulative Biomass usage (Metric Tonne)	State-wise Biomass usage (Metric Tonne)
1	Uttar Pradesh	National Capital Power Station, Dadri, UP	1820	20617	70977
2		Harduaganj TPS, UP	1265	7392	
3		Feroze Gandhi Unchahar Thermal Power Station, UP	1550	9486	
4		Tanda Thermal Power Station, Ambedkar Nagar, UP	1760	3806	
5		Mahan Al. Unit- CPP, UP	900	29676	
6	Haryana	Yamuna Nagar TPS, Haryana	600	455	20969
7		Rajiv Gandhi TPS, Hisar, Haryana	1200	95	
8		IGSTPP, Jhajjar, Haryana	1500	16008	
9		Mahatma Gandhi TPS, Jhajjar, Haryana	1320	4411	
10	Punjab	Nabha Power Limited (NPL), Punjab	1400	30	180
11		Guru Gobind Singh Super Thermal Plant Ropar (GGSSTP), Ropar, Punjab	840	61	
12		Guru Hargobind Thermal Plant (GHTP), Lehra Mohabbat, Punjab	920	39	
13		TSPL, Mansa, Punjab	1980	50	
14	Maharashtra	Mauda Super Thermal Power Station, Nagpur, MH	2320	24167	27349
15		Solapur Super Thermal Power Station, Solapur, MH	1320	3060	
16		Dhariwal Thermal Power Plant Chandrapur, MH	600	87	
17		GMR Warora Energy Limited, Maharashtra	600	20	
18		JSW Energy - Ratnagiri Maharashtra	1200	5	
19		Sai Wardha Power Generation Limited, MH	540	10	
20	Karnataka	Kudgi Super Thermal Power Station, Bijapur, Karnataka	2400	1912	2248
21		JSW Energy - TPP Bellary, Karnataka	860	336	
22	Andhra Pradesh	Simhadri Super Thermal Power Station, AP	2000	4551	4551
23	Chhattisgarh	LARA Super Thermal Power Station, Raigarh, CG	1600	489	11464
24		Sipat Super Thermal Power Station, Bilaspur, CG	2980	3882	
25		Jindal super thermal power plant Tamnar, CG	3400	24	
26		Raipur Energen Limited, CG	1370	77	
27		Badadarha TPP, CG	1200	25	
28		Raigarh Energy Generation Ltd, CG	600	25	
29		Bharat Aluminum Company Limited, CG	1740	6942	

30	Madhya Pradesh	Gadarwara Super Thermal Power Station, MP	1600	3140	17603
31		Khargone Super Thermal Power Station, , MP	1320	13417	
32		Jaypee Nigrie super Thermal power plant, MP	1320	577	
33		Jaypee Bina TPS, MP	500	425	
34		Sasan Power Ltd Madhya Pradesh	3960	44	
35	Bihar	Kahalgaon Super Thermal Power Station, Bihar	2340	10	10
36	West Bengal	Budge Budge Thermal Power station, WB	750	181	896
37		Haldia Thermal Power plant, WB	600	90	
38		Farakka super thermal Power plant, Murshidabad, WB	2100	77	
39		Durgapur Steel Thermal Power Station (DSTPS)	1000	501	
40		Bakreswar Thermal power station, WB	1050	22	
41	Sagardighi TPS, WB	1600	25		
42	Rajasthan	Adani Power Rajasthan Limited, Rajasthan	1320	111	7927
43		Shree Mega Power Bewar (CFBC), RJ	344	7816	
44	Odisha	Jharsuguda Captive Power, Odisha	1215	44	64
45		GMR Kamal Ganga, Odisha	700	20	
46	Tamil Nadu	OPG Power Generation Pvt Ltd, Tamil Nādu	420	715	715
47	Jharkhand	Jojobera Power Plant, Jharkhand	427.5	23	23
Grand Total			64351.5	164976	164976
