GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 3008
ANSWERED ON 29.03.2022

INFORMATION ON WASTE-TO-ENERGY PLANTS

3008. SHRI ABIR RANJAN BISWAS

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the number of waste-to-energy plants currently operating in the country and the amount of Biogas/Bio CNG/Power that is being generated from them, State-wise and product-wise;
(b) whether incineration is also used as a technique in waste-to-energy plants;
(c) if so, how the harmful and polluting gases and other micro pollutants are handled after incineration; and
(d) the amount of waste that is being incinerated currently in the country for waste-to-energy?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a) A total of 249 Waste-to-Energy plants, 819 Biomass Power plants and 50.8 lakhs small Biogas plants have been set up in the country to generate Power/Biogas /BioCNG. Details of Waste to Energy plants, Biomass Power plants and small biogas plants set up in the country as on 28.02.2022 are given in the **Annexure**.

(b) & (c) In Waste to Energy plants, incineration is used for recovery of energy from dry and combustible wastes such as municipal solid waste (MSW) having calorific value of more than 1500kCal/kg. Emission of pollutants arising from incineration of MSW is handled by deploying pollution control devices, Flue Gas treatment (FGT) and regulating temperature in the combustion chamber to achieve the emission limits as prescribed in Solid Waste Management Rules 2016. Further, Online Emission Monitoring Systems are also installed in the plant which are monitored by State Pollution Control Boards (SPCB's).

(d) As on 28.02.2022, 11 plants with a total cumulative installed capacity of 132.1 MW for power generation from Municipal Solid Waste (MSW) have been set up in the country. These plants have capacity of processing approximately 11,000 tons of MSW/day to generate electricity.

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Annexure

Annexure referred to in reply to parts (a) of the Rajya Sabha Unstarred Question No. 3008 to be answered on 29.03.2022 regarding "Information on Waste to Energy Plants"

Details of Waste to Energy plants, Biomass Power plants and small Biogas plants set up in the country

S.No.	State/ UT	Biogas (upto 2500 m3)*	Waste to Energy plants			Biomass Power #
			Biogas (>2500m3/day)	BioCNG	Power	
		Nos	MWeq	MWeq	MW	MW
1.	Andaman & Nicobar	97	-	-	-	-
2.	Andhra Pradesh	268631	7.81	1	73.56	483.67
3.	Arunachal Pradesh	3621	-	-	-	-
4.	Assam	139414	-	-	-	2
5.	Bihar	130072	1	-	-	124.7
6.	Chandigarh	169	-	-	-	-
7.	Chhattisgarh	60252	-	0.08	0.33	274.59
8.	Dadar & Nagar Haveli	681	-	-	-	-
9.	Delhi	578	-	-	52	-
10.	Goa	4234	-	-	0.34	-
11.	Gujarat	435640	3.07	10.12	18.78	77.3
12.	Haryana	64015	-	2.14	13.2	210.66
13.	Himachal Pradesh	47718	1	-	-	9.2
14.	Jammu & Kashmir	3201	-	-	-	-
15.	Jharkhand	7890	-	-	-	4.3
16.	Karnataka	512823	4.84	3.21	6.8	1887.3
17.	Kerala	153705	0.23	-	-	2.27
18.	Madhya Pradesh	379163	2.25	0.25	17.8	107.347
19.	Maharashtra	931358	12.05	5.78	29.91	2584.4
20.	Manipur	2128	-	-	-	-
21.	Meghalaya	11156	-	-	-	13.8
22.	Mizoram	5857	-	-	-	-
23.	Nagaland	7953	-	-	-	-
24.	Odisha	271753	-	-	-	59.22
25.	Puducherry	17541	-	-	-	-
26.	Punjab	187177	2.9	0.38	14.92	473.45

S.No.	State/ UT	Biogas (upto 2500 m3)*	Waste to Energy plants			Biomass Power #
			Biogas (>2500m3/day)	BioCNG	Power	
		Nos	MWeq	MWeq	MW	MW
27.	Rajasthan	72887	-	0.83	3	121.25
28.	Sikkim	9044	-	-	-	-
29.	Tamil Nadu	224075	11.43	3.7	12.7	1012.65
30.	Telangana	316732	5.47	0.92	48.46	160.1
31.	Tripura	3744	-	-	-	-
32.	Uttar Pradesh	441220	5.19	0.42	53.86	2117.26
33.	Uttarakhand	365198	6.11	1.23	1.89	130.22
34.	West Bengal	1217	1.17	-	-	319.92
	Total	**50,80,944**	**64.51**	**30.06**	**347.55**	**10175.61**

***Small Biogas Plants include biogas plants of size upto 2500m3 and power plants (based on Biogas) of size upto 250kW which have been installed under New National Biogas and Organic Manure Programme (NNBOMP) and Biogas Power Generation (Off-grid) and Thermal Energy Application Programme, up to 31.03.2021.*

 # Biomass power plants include Biomass Power (IPP), Bagasse Cogeneration and Non-Bagasse Cogeneration