

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 1928
TO BE ANSWERED ON 10.12.2015

ENERGY PRODUCTION

1928. SHRI RAMDAS C. TADAS:
DR. A. SAMPATH:

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

- (a) whether the Government has taken any steps to utilize the waste generated at the time of construction activities of various kinds for energy production;
- (b) if so, the details thereof and the steps being taken by the Government in this regard;
- (c) the total number of waste to energy plants currently operational in the country, State/UT-wise including Maharashtra ?
- (d) whether the Government proposes to open more waste to energy plants in the country and if so, the details and the locations thereof, State /UT wise including Maharashtra;
- (e) whether the Government has carried out any study to assess the cost effectiveness of these plants, if so, the details and the outcome thereof and if not, the reasons therefor; and
- (f) whether these plants may/are likely to add to air pollution, if so, the details thereof and reaction of the Government thereto and the steps taken by the Government in this regards?

ANSWER

THE MINISTER OF STATE FOR POWER, COAL & NEW AND RENEWABLE ENERGY
(INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

(a)&(b): No Sir. Energy cannot be generated from waste generated at the time of construction activities of various kinds except woody wastes. However, Ministry of New and Renewable Energy is currently implementing a “Programme on Energy from Urban, Industrial and Agricultural Wastes/Residues”. As per the direction of the Hon’ble Supreme Court, 5 pilot projects based on municipal solid wastes, has been taken up for production of electricity. Details of the Central Financial Assistance (CFA) provided by the Ministry for setting up projects of different categories and for other promotional activities are given at **Annexure - A**.

(c): 3 waste to energy plants are currently operational in the country as per details given at **Annexure – B.**

(d): In addition to the above, Ministry of Urban Development has launched “Swachh Bharat Mission” (SBM) on 2nd October, 2014 with the target to make the country clean by 2nd October, 2019. The Mission, among other measures, includes Solid Waste Management including Waste to Energy for which there is a provision for 20% of project cost as Viability Gap Funding (VGF)/Grant where State Governments or Urban Local Bodies can opt for any feasible waste processing technology. A list of 21 plants under construction/tendering or agreement stage is given at **Annexure - C.**

(e): The waste to energy plants are cost effective with the Generic Tariff as given at **Annexure – D** for Municipal Solid Waste (MSW), Refuse Derived Fuel (RDF) and Biogas based Waste to Energy (WTE) projects notified by the Central Electricity Regulatory Commission (CERC).

(f): The waste to energy plants are supposed to comply emission norms prescribed by MoEF & CC in Waste Management and Handling Rules 2000.

Annexure - A referred in reply to Parts (a) & (b) of the Lok Sabha Unstarred Question No.1928
for answer on 10.12.2015

**CENTRAL FINANCIAL ASSISTANCE UNDER THE PROGRAMME ON ENERGY FROM URBAN,
INDUSTRIAL AND AGRICULTURAL WASTES/RESIDUES**

Wastes/Processes/Technologies	Central Financial Assistance
1. Power generation from Municipal Solid Waste	Rs.2.00 crore/MW (Max. Rs.10.00 crore/Project)
2. Power generation from biogas at Sewage Treatment Plant or through biomethanation of Urban and Agricultural Waste/residues including cattle dung or production of bio-CNG	Rs.2.00 crore/MW or bio-CNG from 12000 m ³ biogas/day (Max. Rs.5.00 crore/project)
3. Biogas generation from Urban, Industrial and Agricultural Wastes/residues	Rs.0.50 crore/MW eq.(12000 m ³ biogas/day with maximum of Rs.5.00 crore/project)
4. Power Generation from Biogas (Engine/gas turbine route) and production of bio-CNG for filling into gas cylinders	Rs.1.00 crore/MW Or bio-CNG from 12000 m ³ biogas (Max. Rs.5.00 crore/project)
5. Power Generation from Biogas, solid Industrial, Agricultural Waste/residues excluding bagasse through Boiler + Steam turbine Configuration	Rs.0.20 crore/MW (Max. Rs.1.00 crore / project)

Other incentives and support measures

- i) Incentives to State Nodal Agencies: service charge @ Rs.1% of the subsidy restricted to Rs.5.00 lakh per project,
- ii) Financial Assistance for promotional activities: for organizing training courses, business meets, seminars/workshops and publicity/awareness, subject to a maximum of Rs.3.00 lakh per activity.
- iii) In addition, concessional customs duty and excise duty exemption are also provided for initial setting up of grid connected projects for power generation and production of Bio-CNG from waste.

Annexure - B**Annexure - B referred in reply to Part (c) of the Lok Sabha Unstarred Question
No.1928 for answer on 10.12.2015****List of waste to energy plants currently operational in the country**

S. No.	Project promoters	Location	Capacity (MW)	Technology	Project cost (Rs. in crores)	Present status
1	M/s. Timarpur Okhla Waste Management Private Ltd. (TOWMCL) Jindal ITF Centre, 28 Shivaji Marg, New Delhi (Promoted by Jindal Urban Infrastructure Ltd.)	Old NDMC Compost plant, New Okhla tank, Delhi	16	Combustion & Processing 1950 MT MSW per day	188.28	Commissioned in January 2012 PIL filed by Resident Association of Sukdev Vihar.
2	M/s East Delhi Waste processing Company (P) Ltd., New Delhi (Promoted by DIAL, IL&FS Energy Dev. Co. Ltd. (IEDCL) and SELCO International Ltd.)	Gazipur, Delhi	12	Combustion	155.42	Project installation completed and is under trail run/ commissioning
3.	M/s Solapur Bio-Energy Systems Pvt. Ltd., CBD Belapur, Navi Mumbai	Solapur, Maharashtra	4	Biomethanation	40.89	Commissioned on 04.07.2013

Annexure - C

Annexure - C referred in reply to Part (d) of the Lok Sabha Unstarred Question No.1928 for answer on 10.12.2015

List of plants under Construction/Tendering or Agreement stage

S. No	Name of city/town	Proposed capacity (MW)	Probable month of commissioning/ status
1.	Andhra Pradesh (10 plants in 10 Clusters)	70	Tender floated
2.	Patna, Bihar	12	December, 2017
3.	Ghazipur, Delhi	12	September, 2015 (Trial run started)
4.	Narela- Bawana, Delhi	24	December, 2015
5.	NDMC, New Delhi	4	Agreement stage
6.	Ahmedabad, Gujarat	15	Negotiation stage
7.	Surat, Gujarat	13.5	PPA to be signed
8.	Bengaluru, Karnataka	8	June, 2016
9.	Jabalpur, Madhya Pradesh	11.5	November, 2015
10.	Indore, Madhya Pradesh	10	Agreement stage
11.	Pune, Maharashtra	7	February, 2017
12.	Kolhapur, Maharashtra	3	December, 2017
13.	Bathinda, Punjab	12	March, 2017
14.	Jalandhar, Punjab	12	March, 2017
15.	Jodhpur, Rajasthan	5	Tender received & under scrutiny
16.	Jaipur, Rajasthan	5	Tender to be floated
17.	Kota, Rajasthan	5	Tender to be floated
18.	Chennai, Tamil Nadu	3	December, 2015
19.	Greater Hyderabad Municipal Corporation, Telangana	11	December, 2015
20.	Cluster of Municipalities, Nalgonda, Telangana	12.6	November, 2015
21.	Gorakhpur, Uttar Pradesh	5	Tender floated
Total		260.6	

Annexure D

Annexure D - referred in reply to Part (e) of the Lok Sabha Unstarred Question No.1928 for answer on 10.12.2015

Generic Tariff for Waste to Energy Projects for the year 2015-16 as notified in Central Electricity Regulatory Commission (CERC)

Technology	Variable Cost (Rs/kWh)	Levelised Fixed Cost (Rs /kWh)	Applicable Tariff (Rs/kWh)	Benefit of Accelerated Depreciation (if availed) (Rs/kWh)	Net Levelised Tariff (Rs/kWh)
MSW	0.00	7.04	7.04	0.54	6.50
RDF based MSW	3.56	4.34	7.90	0.31	7.59
Biogas	3.57	4.29	7.86	0.26	7.60