

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 948
ANSWERED ON 30/07/2024

IMPLEMENTATION AND SUPPORT FOR WASTE TO ENERGY (WTE) PROJECTS

948. SHRI S NIRANJAN REDDY

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

- (a) details of funds disbursed and utilized under waste to energy programme for setting up plants for biogas generation, BioCNG production and power generation from waste;
- (b) current status of waste to energy projects running under the WTE programme, including the number and capacity of biogas, BioCNG, and power generation plants in the country;
- (c) number of BioCNG plants set up under the Sustainable Alternative Towards Affordable Transportation (SATAT) initiative and progress towards the target of 15 MMT of BioCNG by 2023-24; and
- (d) steps taken by Government to promote and encourage the establishment of new waste to energy plants across the country?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) Details of Central Financial Assistance (CFA) released to support setting up of Biogas, BioCNG and Power projects under the Waste to Energy Programme, during last three financial years are given at **Annexure-I**.

(b) As on 30.06.2024, a cumulative installed capacity of 593.36 MWeq for generation of biogas, BioCNG, and power, have been achieved under the Waste to Energy programme of MNRE. Details are at **Annexure-II**.

(c) The Ministry of Petroleum and Natural Gas, has launched "Sustainable Alternative Towards Affordable Transportation (SATAT)" initiative in October 2018, wherein Oil and Gas Marketing Companies (OGMCs) viz. IOCL, HPCL, BPCL, GAIL and IGL invite Expression of Interest (EOI) from the entrepreneurs across the country for procurement of Compressed Bio Gas (CBG) for further marketing as transportation and industrial fuel.

Under the SATAT initiative as on 01.07.2024, 71 BioCNG/CBG plants with an installed capacity of 450 TPD have been commissioned, and 59 CBG projects are under construction.

(d) Various steps taken by the Government to promote and encourage the establishment of new waste to energy plants across the country, inter-alia, include:

- i. The Ministry of New and Renewable Energy is implementing Waste to Energy (WTE) Programme under the umbrella of National Bioenergy Programme. The WTE Programme has a budget outlay of Rs 600 crore for the period FY 2021-22 to FY 2025-26. This

- Programme, inter-alia, supports setting up of plants for generation of BioCNG from urban, industrial and agricultural waste by providing central financial assistance (CFA).
- ii. The Ministry of Petroleum and Natural Gas (MoPNG), under the Sustainable Alternative Towards Affordable Transportation (SATAT) initiative envisages setting up of 5000 BioCNG plants with production target of 15 MMT of BioCNG by 2023-24. SATAT initiative encourages entrepreneurs to set up BioCNG plants, produce & supply BioCNG to Oil Marketing Companies (OMCs) for sale as automotive fuels.
 - iii. Department of Drinking Water and Sanitation (DDWS) launched Galvanizing Organic Bio-Agro Resources Dhan (GOBAR-DHAN) scheme in 2018. Gobardhan is an integral part of Swachh Bharat Mission Phase II under Solid Waste Management. The operational guidelines of Phase-II of SBM(G) provide for financial assistance up to Rs.50.00 lakh per district for the period of 2020-21 to 2024-25 for setting up of cluster/community level biogas plants.
 - iv. MoPNG has introduced "Scheme for providing financial assistance to Compressed Bio Gas (CBG) producers for procurement of biomass aggregation machinery.
 - v. The Government has approved "Scheme for development of Pipeline Infrastructure (DPI) for injection of Compressed Bio Gas (CBG) in City Gas Distribution (CGD) network".
 - vi. The Government has introduced phase wise mandatory blending of Compressed Bio-Gas (CBG) in Compressed Natural Gas (Transport) {CNG (T)} and Piped Natural Gas (Domestic) {PNG (D)} segments of City Gas Distribution (CGD) networks reaching up to 5% by FY 2028-29.
 - vii. Concession is available on custom duty for import of machinery and components required for initial setting up of projects for generation of Power from non-conventional materials.
 - viii. BioCNG/Compressed Bio-Gas has been included under Priority Sector Lending.
 - ix. Eight Biogas Development and Training Centers (BDTCs) have been established at India's premier Institutions to provide Technical Assistance, R & D, Testing and Validation of New Biogas Models / Designs, field inspections of biogas plants, and training and skill development.
 - x. Ministry of Road Transport and Highways amended the Central Motor Vehicles Rules, 1989 in June 2015 and included the provisions for usage in motor vehicles Bio-CNG produced from waste (including MSW).
 - xi. As per Solid Waste Management Rules 2016, non-recyclable waste having calorific value of 1500 Kcal/kg or more shall not be disposed of on landfills and shall only be utilised for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel.
 - xii. Ministry of New and Renewable Energy's autonomous institute National Institute of Bio Energy (NIBE), Kapurthala is providing capacity building through M. Tech program on Renewable Energy in joint collaboration with NIT Jalandhar. The institute has also signed MOUs with CSIR-CMERI, Junagarh Agriculture University, Indian Biogas Association and other prominent institutes for research in biogas, solid waste management and other bioenergy aspects.
 - xiii. NIBE is also collaborating with US Energy labs, Pacific Northwest National Laboratory and Lawrence Berkeley National Laboratory, for research work in bioenergy sector.

Annexure-I

Annexure referred to in reply to parts (a) of the Rajya Sabha Unstarred Question No. 948 to be answered on 30.07.2024 regarding “Implementation and Support for Waste to Energy projects”

Details of CFA released under Waste to Energy programme during last three financial years (2021-22, 2022-23, and 2023-24):

Financial Year	CFA Released (in Rs. Crores)
2021-22	75.04
2022-23	57.59
2023-24	20.82
Total	153.45

Annexure-II

Annexure referred to in reply to parts (b) of the Rajya Sabha Unstarred Question No. 948 to be answered on 30.07.2024 regarding “Implementation and Support for Waste to Energy projects”

Details of Waste to Energy Plants set up in the Country as on 30.06.2024

Sl. No	Component	No. of Projects	Installed Capacity (in MWeq)
1	Biogas	93	68.71
2	BioCNG	83	94.42
3	Power	140	430.23
Total		316	593.36

** Waste to Energy plants as mentioned above exclude Biogas plants of size upto 2500m³/day, Biogas based power plants of size upto 250kW and Biomass Power plants.*