

No.300/2/2020-Waste to Energy  
Government of India  
Ministry of New and Renewable Energy  
(Biogas Division)

Atal Akshay Urja Bhawan,  
Opposite CGO Complex  
Lodhi Road, New Delhi-110 003  
Date: 02.11.2022

To,

The Pay & Accounts Officer,  
Ministry of New and Renewable Energy, New Delhi

**Subject:** Administrative approval for implementation of Biogas Programme under the Umbrella scheme of National Bio Energy Programme for FY 2021-22 to 2025-26- (Phase-I) regarding.

Sir/Madam,

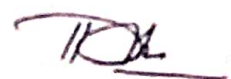
I am directed to convey the sanction of the President of India for the implementation of the National Bioenergy Programme for a period of 01.04.2021 to 31.03.2026 with the outlay of Rs.858 Crore under Phase-I. The National Bioenergy Programme will comprise of the following sub-schemes:

- i. Waste to Energy Programme (*Programme on Energy from Urban, Industrial and Agricultural Wastes /Residues*)
  - ii. Biomass Programme (*Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries*)
  - iii. Biogas Programme
2. The detailed scheme along with operational Guidelines for implementation of Biogas Programme are enclosed with this O.M.
3. The approved budget outlay of Rs.858 Crore under Phase-I also includes the committed liabilities of the sanctions issued under the various sub-schemes of the National Bioenergy Programme up to 31<sup>st</sup> March 2021.
4. Budget outlay of sub-schemes of the National Bioenergy Programme is given as below:

Sub-schemes	Budget outlay of Phase-I (Rs in crore)
Waste to Energy Programme	600
Biomass Programme	158
Biogas Programme	100
Total	Rs. 858 crore

5. The balance committed liabilities under the National Bioenergy Programme to be carried forward beyond 31.03.2026 should not exceed 50% of the total outlay of the National Bioenergy Programme after excluding committed liabilities as on date of EFC (i.e. 27.06.2022).

6. The allocated budget of Rs 100.00 Crore for Biogas Programme which also includes the committed liabilities (up to 31 March 2021) under the erstwhile Biogas Programme i.e. (i) New National Biogas and Organic Manure Programme (NNBOMP) and; (ii) Biogas Power Generation (Off-grid) and Thermal energy application Programme(BPGTP).



7. The proposals received upto 31.03.2021 under BPGTP, and could not be sanctioned by this Ministry shall be considered as per this administrative approval. Applications of such projects should be submitted within three months of date of notification of this guidelines.

8. The expenditure on Biogas Programme will be met from the budget provisions during FY 2022-23 and subsequent years under Demand No 71; Major Head 2810-New & Renewable Energy (Major Head), 00.101 Grid Interactive and Distributed Renewable Power (Minor Head), 06-Bio Energy Programme (Sub Head), 03-Biogas Programme, of MNRE.

9. This issues in exercise of the powers conferred on this Ministry and with the concurrence of IFD Division vide their diary No. 196 dated 01.11.2022.

10. This has approval of Hon'ble Minister for New and Renewable Energy.

Yours faithfully,



(P M Barik)

Scientist C


Email: [pabitra.mnre@gov.in](mailto:pabitra.mnre@gov.in)

Copy to:

1. PS to Hon'ble Minister (NRE & Power).
2. PS to Hon'ble Minister of State (NRE).
3. PSO to Secretary, MNRE.
4. PPS to AS & FA, MNRE.
5. Sr.PPS to JS (Bioenergy Group).
6. Advisers/Directors, MNRE.
7. Pay & Accounts Officer, MNRE.
8. NIC- to upload the Guidelines on Ministry's Website/Biogas portal.

Copy for Information and necessary action:

1. All Central Government Ministries and Departments
2. NITI Aayog Sansad Marg New Delhi
3. Chief Secretaries of State Governments
4. Secretaries of concerned State Government Departments (Agricultural Rural Development Power/Energy/Non-Conventional Energy/Additional Sources of Energy/S&T etc.)
5. Khadi and Village Industries Commission, Head Office, Mumbai.
6. Heads, All Biogas Development and Training Centres.
7. CMD, Indian Renewable Energy Development Agency (IREDA), New Delhi.
8. National Bank for Agriculture and Rural Development (NABARD).
9. Heads of State Nodal Departments/Agencies
10. Principal Director of Audit, Scientific Department, DGACR Building, I.P. Estate, New Delhi-110002.
11. Principal Director (Local Bodies Accounts)/Director (Local Bodies), Office of the Comptroller and Auditor General of India, 9-Deen Dayal Upadhyaya Marg, New Delhi02.
12. Head of Urban Local Bodies
13. Head of Banks/Financial Institutions



(P M Barik)  
Scientist C

# CENTRAL SECTOR SCHEME

# BIOGAS PROGRAMME

*(Detailed Implementation Guidelines)*



सत्यमेव जयते

Government of India  
Ministry of New and Renewable Energy  
New Delhi – 110003

November - 2022

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# **BIOGAS PROGRAMME**

## **Introduction:**

India is endowed with abundant renewable energy resources and their use should be encouraged in every possible way. Rural India generates enormous quantities of bio-waste including animal waste, kitchen leftovers, crop residue, market waste and faecal sludge. Biogas is an environment friendly fuel and its utilization contributes to reduction of carbon emissions and pollution. Over a period of time, MNRE has fine-tuned the Biogas programme and rationalized the subsidy scheme, strengthened the institutional framework at state and district level, supported new & innovative biogas plant models, supported women empowerment through usage of biogas plants & organic farming and created employment opportunities.

## **2. Objectives:**

The objectives of the Biogas Programme are as follows:

- i. Setting up of biogas plants for clean cooking fuel, lighting, meeting thermal and small power needs of users which results in GHG reduction, improved sanitation, women empowerment and creation of rural employment.
- ii. Organic enriched Bio-manure: The digested slurry from biogas plants, a rich source of manure, shall benefit farmers in supplementing / reducing of use of chemical fertilizers.

## **3. Scope of Biogas Programme:**

To attain the above mentioned objectives and for popularization of biogas sector, this scheme covers setting up of small and medium biogas plants ranging from 1 M<sup>3</sup> to 2500 M<sup>3</sup> biogas generation per day for individual user, farmers, poultry, goshalas, slaughter house, dairies/ co-operatives, industries/ organizations and others.

## **4. Implementation Mechanism:**

The following two implementation models under the Biogas Programme shall be eligible for CFA/Incentive.

- (i) **Implementation through State PIAs:** The biogas programme will be implemented by the designated Programme Implementing Agency (PIA) of the State/ Union Territory / Khadi Village and Industry Commission (KVIC), Mumbai, National Dairy Development Board (NDDB) Anand/ Biogas Development and Training Centres(BDTC).
- (ii) **Implementation through Financial Institutions:** Financing Organizations/ Institutions / Banks/ Indian Renewable Energy Development Agency (IREDA), NABARD/ RBI approved Financial Institutions may also implement the Biogas Programme in consultation with PIAs.

5. The Programme Implementing Agency shall implement the biogas (1 M<sup>3</sup> to 25 M<sup>3</sup>) programme through the following mechanisms: -

- (i) Installation of biogas through biogas turnkey workers / renewable energy technicians registered with respective PIA of the State/ UT.
- (ii) Installation of biogas through MNRE approved Original Equipment Manufacturers(OEMs) and their certified service providers.



## 6. Central Financial Assistance:

- (i) **CFA for Biogas Plants 1 M<sup>3</sup> to 25 M<sup>3</sup> Biogas generation per day:** The Central Financial Assistance (CFA) for different approved components under the Biogas Programme for Biogas plants of size ranging from 1 M<sup>3</sup> to 25 M<sup>3</sup> of biogas generation per day are as given below in the Table-I.

Table-I

Sr. No	Particulars of Central Financial Assistance (CFA) and States / UTs, regions & categories of beneficiaries	Biogas Plants under Biogas Programme ranging from size 1 to 25 cubic Metre biogas per day (In ₹per plant )						
A	CFA Applicable	1 M <sup>3</sup>	2-4 M <sup>3</sup>	6 M <sup>3</sup>	8-10 M <sup>3</sup>	15 M <sup>3</sup>	20-25 M <sup>3</sup>	
	(i) Hilly/NER States (Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Ladakh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand)	17,000	22,000	29,250	34,500	63,250	70,400	
	(ii) Island; and							
	(iii) Scheduled Castes (SC)/ Scheduled Tribes(ST).							
	(iv) All other States and Categories	9,800	14,350	22,750	23,000	37,950	52,800	
B	<b>Additional fixed Subsidy for</b>							
	(i) Biogas plant if linked with sanitary toilet	1,600	1,600	1,600	1,600	NA	NA	
		1600	1600	1600	1600	1600	1600	
	(ii) Biogas plant if linked with MNRE approved Biogas slurry filter Unit.							
C	<b>Turn-Key Job Fee</b> for construction, supervision, commissioning, and free O&M warranty for 5 years trouble free operations.	₹ 3,000/- per biogas plant for size ranging from 1 to 10 M <sup>3</sup> and ₹ 5,000/- per plant for size ranging from 15 to 25 M <sup>3</sup> . This turn key job fee is applicable only for plants involving onsite construction such as fixed dome design Deenbandhu Model, floating gasholder KVIC Model. Turnkey job fee will not be eligible for pre-fabricated/ manufactured biogas plants.						
D.	<b>Administrative Charges payable to PIA for physical target achievement range of biogas plants (Amount in ₹)</b>							
	100 - 1,999 nos. of Biogas Plants.	₹ 1,00,000 <sup>^</sup>						
	2,000 - 5,000 nos. of Biogas plants	₹ 10,50,000 <sup>^^</sup>						
	Above 5,000 nos. of Biogas plants	₹ 24,50,000 *						
	<b>(Amount in ₹ per course)</b>							
E	<b>Support for Training courses</b>							
	(i) Users Course							₹ 4,000
	(ii) Staff Course							₹ 10,000
	(iii) Construction-cum Maintenance /Refresher Course							₹ 50,000
	(iv) Turn-key Workers Course / Skill Development Course							₹ 75,000



F	Support for BDTCs.	Financial support for set functions and roles of BDTCs would be provided towards staff, conducting training courses, skill development courses, pilot plant demonstration, TA/DA, consumables and contingency as per allocated targets.
G	Incentive for saving fossil fuels & electricity.	An additional incentive of ₹10,000/- per Biogas based Generator set / Biogas engine water Pumping System (BPS) for meeting small farm power needs and water pumping from the biogas plant of 10 to 25 M <sup>3</sup> . CFA will be eligible only if the Generator set / BPS will run on 100% Biogas.

Additional incentive to PIAs for implementation of Biogas Program for biogas plants ranging from 1 to 25 M<sup>3</sup> (under the component A above)

^ Extra Rs. 500 per plant in excess of 100 biogas plants installed.

^^ Extra Rs. 450 per plant in excess of 2000 biogas plants.

\* Extra Rs. 400 per plant in excess of 5,000 biogas plants subject to maximum of ₹ 60.00 lakh.

- (ii) **CFA for Medium size biogas plants:** The CFA for biogas plants of size above 25 M<sup>3</sup> to 2500 M<sup>3</sup> biogas generation per day are as given below in the Table-II.

Table-II

Power generating Capacity (kW)	Requirement of DPR	CFA** limited to the following ceiling limit		Administrative Charges for PIA*	
		Power Generation	Thermal Application	Power Generation	Thermal application
3 kW – 50 kW	No	₹ 45,000 per kW	₹ 22,500 per kWeq thermal/ cooling	10% of the CFA	5% of the CFA
>50 kW – 200 kW	Yes	₹ 40,000 per kW	₹ 20,000/- per kWeq thermal/ cooling	₹2,00,000/- (fixed)	₹1,00,000/- (fixed)
>200 kW – 250 kW	Yes	₹ 35,000 per kW	₹ 17,500/- per kWeq thermal/ cooling	₹2,50,000/- (fixed)	₹1,00,000/- (fixed)

\*Administrative Charges for PIA shall be provided for technical supervision, submission of project completion & commissioning reports and monitoring of projects.

\*\* Special Incentives for NER, Island, Registered Gaushalas; and SC/ST: An incentive of 20% over and above the CFA mentioned in Table-II.

## 7. Proposal Submission under Biogas Programme:

- (i) **For Small Biogas Plants (1 M<sup>3</sup> to 25 M<sup>3</sup>):** The individual beneficiary can submit their application with requisite details for installation of biogas plants through MNRE biogas web portal/android mobile app. The PIA will process such applications only after allocation of targets and then take action for the installation of biogas plants at the beneficiary site. The PIAs shall raise the consolidated annual demand of biogas plants at the beginning of the financial year by 15<sup>th</sup> April. The annual physical targets of a particular financial year may

be revised to make the programme more effective after conducting a midterm review of the physical achievements. The targets to BDTs for conducting various types of training courses and new pilot demonstration projects shall be fixed on annual basis; and

- (ii) **For Medium Size Biogas Plants (above 25 M<sup>3</sup> to 2500 M<sup>3</sup>):** The proposals for such projects shall be submitted by the PIAs to MNRE round the year through MNRE Biogas web-portal.

**9. Project Approval Mechanism:**

- (i) MNRE will allocate the annual physical targets for setting up of biogas plants (size ranging from 1 M<sup>3</sup> to 25 M<sup>3</sup>) to the designated PIAs; and
- (ii) Each biogas plant (above 25 M<sup>3</sup> to 2500 M<sup>3</sup> biogas) proposal will be examined by the MNRE on case-to-case basis and an Administrative Sanction / in-principle approval shall be issued.

**9. Project Completion and Commissioning:**

- (i) **For small biogas plants (1 M<sup>3</sup> to 25 M<sup>3</sup>)** the installation work of the biogas plants should be started immediately after allocation of annual targets. The scheduled deadline for the completion of the work will be the end of the particular financial year unless prior approval for extension of the completion period is approved by the competent authority of MNRE; and
- (ii) **For medium size biogas plants (above 25 M<sup>3</sup> to 2500 M<sup>3</sup>)** the completion and commissioning of projects in all respects should be completed within 12 months from the date of Sanction of project and in any case not more than 24 months from the date of the issue of MNRE's Administrative Sanction/ in-principle approval of the project.

**10. Release of Funds:**

- i. **For Small Biogas Plants (1 M<sup>3</sup> to 25 M<sup>3</sup>):** The CFA for approved components as mentioned under Table-I under Para 6 (i) will be released quarterly to PIAs on reimbursement basis corresponding to actual achievements reported against the allocated annual targets; and
- ii. **For medium size biogas plants (above 25 M<sup>3</sup> to 2500 M<sup>3</sup>):** The CFA as given in Table-II under 6 (ii) would be released on re-imbursement basis after successful commissioning of the biogas plant directly to the beneficiaries account. The eligible administrative charges of the PIA will be disbursed separately.

**11. Roles and Responsibilities of Implementation Agency:**

The Programme Implementing Agencies will be responsible for the following activities:

- i. Demand aggregation and submission of proposals on the Biogas web portal of MNRE.
- i. Assessing the Biogas user's application and take action for installation of biogas plants at the beneficiary site.
- i. Mandatory submission of monthly progress reports and updating all the information of the installed biogas plants on MNRE Biogas Portal
- i. Review of installation, inspection and monitoring of installed biogas plants.
- i. Ensure project completion within the given timelines and compliance of MNRE Guidelines and Standards.



- i. Submission of financial documents of expenditure and disbursement of CFA to the end users.
- ii. Ensure compliance of Annual Maintenance Contract and training of biogas users / technicians by the BDTCs; and
- iii. Any other activity to ensure successful implementation of the programme.

## 12. Biogas Development and Training Centres:

MNRE has designated eight (8) centres at technical institutions/IIT/universities in different states for providing technical support to different stake holders towards promotion of bioenergy in the country. The list of BDTC's is as follows:

S.N.	Address of BDTC
1.	Department of Mechanical Engineering, Indian Institute of Technology, Guwahati, North Guwahati, Guwahati (Assam)
2.	Department of Agricultural Engineering, University of Agricultural Sciences, GKVK, Bangalore Karnataka
3.	Centre of Energy Studies and Research (CESR), Devi Ahilya Vishwavidyalaya, Khandwa Road, Indore, Madhya Pradesh
4.	Department of Civil Engg. Punjab Agricultural University, Ludhiana, Punjab
5.	Department of Renewable Energy Engineering College of Technology & Agricultural Engineering, Maharana Pratap University of Agriculture & Technology, Udaipur (Rajasthan)
6.	School of Biotechnology, Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar, Odisha
7.	Agricultural Engineering and Research Institute, Tamilnadu Agricultural University, Coimbatore, Tamil Nadu.
8.	Centre for Rural Development & Technology, (CRDT), IIT Delhi, Hauz Khas, New Delhi

## Role and Functions:

- i. To provide technical assistance and conduct trainings as per MNRE approved courses for effective implementation of Biogas Programme in the country;
- ii. Preparation of technical booklets / guidelines / training & publicity material, conduct field seminars/webinars
- iii. Research & Development in the field of biogas technology and its application, setting up pilot demonstrations of new design and models of the Biogas Plants, Testing & performance evaluation of biogas plants, Field Inspection of Biogas plants

The targets of conducting various types of activities by the eight BDTCs as mentioned above shall be fixed on annual basis and each BDTC would be supported for engaging contractual manpower for same. The funds for BDTCs shall be released at the beginning of each financial year for taking up all activities under the Biogas Programme.

## 13. Monitoring and Review of Biogas Programme:

The PIAs will set up an arrangement to closely monitor the implementation of their projects covered under this scheme. The PIA would be responsible for monitoring of installation work being carried out by the corporate entities and parameters such as end-use verification and compilation of statistical information and reporting to MNRE. MNRE will review the progress of implementation under the biogas programme on half yearly basis.



**14. Award Scheme under Biogas Programme:**

Under the Biogas Programme, MNRE would award three Certificates of merit by appreciating the best i.e. 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> to the PIAs for overall performance and achieving highest annual targets allocated under the Scheme. This is for motivating all the PIAs to achieve their physical targets under the Biogas Programme. MNRE will not provide any financial support for this purpose.

*The aforesaid Biogas programme is subject to change(s) and modification(s) as may be decided by the MNRE, Govt. of India from time to time, and subject to availability of funds. The Ministry shall in no way be liable for expenditure incurred by users/promoters for pre-project preparation or other activities, merely on the basis of this circular and / or related announcement by the Ministry. In case of any ambiguity on interpretation of any provisions of the scheme, the decision of the Ministry shall be final and binding.*

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# **OPERATIONAL GUIDELINES FOR IMPLEMENTATION OF BIOGAS PROGRAMME**

## **Guidelines for Submission of Application by Biogas beneficiary:**

The individual beneficiary / user shall register their application / interest for installation of biogas plant for through MNRE's biogas portal ( available at <https://biogas.mnre.gov.in>). The beneficiary shall be available for verification with details/ documents as registered at the time of application for faster installation.

## **Guidelines for Payment of Subsidy for Biogas Plants (1 to 25 M<sup>3</sup>):**

The CFA / subsidy will be disbursed to the beneficiaries of biogas plants by crediting to their Bank Accounts after **completion and commissioning of biogas plants.**

Commissioning of Biogas plant includes laying of quality biogas pipeline, water remover, installation of standard biogas stoves/burner, and generation of biogas from the biogas plants for its use by the beneficiary concerned and duly issuing the Completion Certificate (CC) of the Biogas Plant.

The applicable CFA amount would be disbursed to the beneficiaries of biogas plants in the following manner-

- i. In case, a biogas plant beneficiary has taken loan for setting up of biogas plant from Banks /Financial Institutions, the CFA/subsidy amount would be disbursed directly to his Biogas Loan Account of the beneficiaries by following DBT route, after commissioning of Biogas plant.
- ii. In case the entire expenditure of construction and commissioning of a biogas plant is borne by the beneficiary himself, the payment of eligible Subsidy/ CFA amount will be paid directly through DBT mode by crediting to the beneficiary's bank account by following DBT route so that this would help him in recouping funds spent by him.
- iii. Apart from admissible CFA from MNRE, the remaining balance fund on actual cost of biogas plant may be shared/borne by beneficiary/ State etc.

**Priorities of coverage of areas and communities:** The designated PIAs/BDTC should cover maximum number of users including the beneficiaries under Scheduled Castes, Scheduled Tribes, Forest Areas and forest fringe villages and left wing affected areas.

## **Guidelines for Biogas Plant (above 25 M<sup>3</sup> to 2500 M<sup>3</sup>)**

- a) The PIAs should ensure that sufficient feed stock/ organic biodegradable materials/wastes for proposed biogas plants size and power generation capacity are available on sustainable basis at least for 10 years.
- b) Biogas Plant shall be operated for a period of consecutive 8 days. The daily performance of the biogas plant over an operation of 10 hours shall be recorded. The Biogas plant needs to operate at an average (taking average 10 hrs per day as standard operating hours) of 80% of its rated capacity measured over a period of 8 days.
- c) The performance of the Biogas plant shall also be recorded for a period of three consecutive months. During this period the biogas plant has to operate with an average 70 % of its rated power generation capacity (kWh)/ Biogas generation (M<sup>3</sup>) measured over a period of three months.
- d) On completion of the project, the PIA will submit the project completion and commissioning report for seeking MNRE CFA on re-imbursement basis.
- e) A third party inspection report by the agency/organization selected by MNRE.
- f) Photographs of the project site including biogas digester, generator, slurry pit, other accessories along with name of beneficiary, site address, date of commissioning, PIA details, project cost along with the MNRE CFA to be written on the display board.

## **Guidelines for Selection of Models of Biogas Plants and Appliances**

**Approved Models of Small Biogas Plants:** Appropriate size and models of biogas plants would be selected on the basis of preference / choice of the beneficiaries and shall be installed keeping in view the



Technical requirements such as location, distance between kitchen and cattle-shed, availability of water and animal stock (cattle dung, biodegradable organic wastes) and sanitary toilets. The following MNRE approved models of biogas plants are available for 1 M<sup>3</sup> to 25 M<sup>3</sup> per day capacities given as under:

Biogas Plant Models*	Specifications/ Ministry's letter Nos. and date and date of approval.
<b>Fixed Dome / Gasholder Biogas Plants:</b> Deenbandhu fixed dome model with brick masonry construction. Deenbandhu ferro-cement model with in-situ technique. Prefabricated RCC fixed dome model. Solid-state Deenbandhu Fixed Dome	-Ministry's letter No.13-10/96-BG dated 10-1-2002. -Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi. -Ministry's letter No.13-11/99-BG dated 5-3-1999 -Ministry's O.M.No.13-5/2016-BG(NBMMP) , Dated 07.11.2016
<b>Floating Dome Design Biogas Plants:</b> KVIC floating steel metal Gasholder with brick masonry digester. KVIC floating Gasholder type plant with Ferro- Cement digester. KVIC design Biogas Plant with Fibre Glass Reinforced Plastic (FRP) and Digester. Pragati Model Biogas Plants. KVIC design type digester with floating Gasholder, made up of HDPE/PVC/ FRP/RCC etc. material plant	-Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi. -Code of practice IS-12986:1990 of BIS, New Delhi. Specifications of FRP Gasholder should be as per IS-12986:1990 -Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi. -MNRE O.M.No.18-1/2014-BE(NBMMP) Dated 26.11.2014
<b>Prefabricated model Biogas Plants:</b> (i) Prefabricated Reinforced Cement Concrete (RCC) digester with KVIC floating drum/ gasholder.	-Ministry's O.M.No.18-1/2014 BE (NBMMP), Dated 26.11.2014
Bag Type Biogas Plants (Flexi model)	Ministry's letter No.7-39/89-BG dated 14.7.95
2 M <sup>3</sup> Flexi Domestic PVC coated Biogas Plant	Ministry's O.M. No. No.344/2/2017-BIOGAS dated 21.12.2020.

- (b) **Biogas Plant (1 M<sup>3</sup> to 25 M<sup>3</sup>) Appliances:** In order to provide safe, efficient and economic utilization of the biogas obtained from the Biogas Plants the specifications given in the IS - 8749: 2002, Indian Standard Biogas Stove- Specifications (second revision) shall be followed for manufacturing techniques, materials, design, maintenance and finish. The thermal efficiency shall not be below 55% for each burner of the Biogas Stove. Only ISI Marked, double burner biogas stoves / chulhas should be provided under the BIOGAS irrespective of the size of Biogas Plant.
- (c) The Biogas Turn Key Workers/ RETs/ BMs working for PIA/NDDB/KVIC should ensure availability of spare parts of the biogas stoves/burners and other appliances for providing trouble free and



- continuous long period operations of biogas plants.
- d) Innovative, cost effective and high efficiency new designs models of biogas plants will continue to be added following MNRE approval procedure/ policy for approval of new design / material based biogas plants. The approval of such new designs of biogas plants would be based on the specific feedstock(s) and combinations of organic wastes/ feed-stocks, the innovations, technology development, their field evaluations and worthiness brought out through laboratory / pilot field trials/ demonstrations & verifications as well as satisfaction and acceptance of the same by the potential beneficiaries of biogas plants in the country.
- e) **Biogas plant (above 25 M<sup>3</sup> to 2500 M<sup>3</sup>) Machinery and Equipment:** The equipment for the projects should conform to the existing Standards applicable for biogas plants, biogas engines, generator sets, gas scrubbers, energy meters, biogas flow meters including biogas plants as per BIS/ISO etc. and shall be compliant to meet the requirements of pollution control boards and other applicable rules & regulations.
- (i) **Biogas flow meter:** All biogas plants for thermal applications will necessarily deploy a biogas flow meter for measuring biogas generated from the biogas plants and log daily biogas generation and corresponding quantity of feedstock.
- (ii) All biogas power generating projects above 12 kW (Biogas plant with capacity of above 100 M<sup>3</sup>) capacity power generation shall be equipped necessarily with energy meters and biogas flowmeter for logging of daily performance data.

#### **Guidelines for Turn-Key Job Fee (TKJF) for Biogas Plant (1 M<sup>3</sup> to 25 M<sup>3</sup>) Installation**

- (a) **Turn-Key Job Fee:** The Turn-key Job Fee would be linked with five years' free warranty for trouble-free functioning of biogas plants setup on **Turn-Key Work Contract basis**. Under this scheme the approved and applicable rate of Turn-Key Job Fee per biogas plant according to the size(s) of biogas plants as given in **Table-1** under para 6 of the scheme guidelines.
- the registered Biogas Turn Key Workers (BTKWs) / Biogas Rural Energy Technicians (BRETs)/ Biogas Mitras /MSMEs as identified by the PIA following the transparent procedure of "Award of Work";
  - Registered Societies, registered corporate organizations/bodies identified by the State Governments Departments / PIA; following the transparent procedure of "Award of Work";
  - Registered trained entrepreneurs BTKW/RETs /SHGs/ Biogas Small & Medium Enterprises (BSMEs); and
  - Recognized categories of A&B class contractors of PWD in the field of Biogas Plants construction, commission and supervision & maintenance as found to be successful for implementation of the scheme and their subsequent recognition and registration under the designated State PIA.
- ) **Procedure for release of payment:** The PIA should disburse the payment of the Turn-Key Job Fee to their approved Turnkey Worker/ Agencies/ Biogas Mitra/ RETS/Energy technicians in two instalments for biogas plants up to 10 M<sup>3</sup> capacity. The total Turnkey Job fee of Rs. 3000/- per plant is to be paid in two instalments. The **1<sup>st</sup> instalment of Rs. 1500/-** is to be released after proper construction, completion and successful commissioning date and after issue of Completion Certificate of the biogas plant by the concerned authorities; and The **2<sup>nd</sup> instalment of Rs. 1500/-** is to be paid to the respective TKW/RET at the end of fifth year from the date of commissioning of the biogas plant on satisfactorily compliance to the service warranty based on the physical inspection of the biogas plant.
- ) For biogas plants of size more than 10 Cubic meter and up to 25 Cubic meter the **1<sup>st</sup> instalment of Rs. 2500/-** per plant is to be released after proper construction, completion and successful commissioning of the biogas plant and on getting beneficiary's consent and issue of completion certificate and the **2<sup>nd</sup> instalment of ₹ 2500/-** would be paid after verification/inspection of Biogas Plant by the Officers of PIA



and upon meeting the functional/operational requirements of Biogas Plants in their optimal usage shall be payable after five years and following the checks and documents as mentioned above for smaller plants. Each beneficiary of a Biogas Plant will be provided a Biogas User's Service-cum-Warranty Card for compliance/adhering and providing Five Year's Free Warranty Services to the beneficiaries of Biogas plants. The complaints lodged by the beneficiaries are to be attended within the specified time period of within a week. MNRE will not provide any financial assistance for repair for non-functional Biogas. Alternately, the beneficiary can report their complaint on the Biogas web-portal.

**Warranty:** The manufacturers / biogas developers of pre-fabricated/ manufactured biogas plants shall provide a free warranty including O&M Services for five years to the beneficiaries. In case the RET/TKW defaults on the warranty before the period of 5 years, the State PIA/ BDTC may decide to blacklist the concerned agencies, entrepreneurs/ Turn Key Worker /RET.

**Guidelines for selection of approved OEMs and their authorized service providers for setting up of biogas plants (1 M<sup>3</sup> to 25 M<sup>3</sup>):**

- (a) Keeping in view of interest of beneficiary and emerging cost effective designs of biogas plants, the PIA may devise a suitable mechanism for selection and registration of OEMs/ and their authorized service providers for installation of biogas plants under the Biogas Programme.
- (b) Only MNRE approved models of prefabricated biogas plants shall be eligible for the selection.
- (c) The manufacturers / developers of pre-fabricated/ manufactured biogas plants shall provide a free warranty and O&M services of five years' period to the biogas beneficiaries.
- (d) The manufacturers shall ensure the useful life of the biogas plants should not less than 10 years.

**I) Guidelines for Record Management of Biogas Plants by PIAs:**

- (a) The Detailed Information/ Database of Beneficiaries of Biogas Plants (1 M<sup>3</sup> to 2500 M<sup>3</sup>): should mandatorily be uploaded on PIA's websites. This detailed information should be readily available for post verifications / inspection of the Officers of MNRE / State Govt. Officials / Independent Evaluators and also for post Audit Verification purposes by the Statutory Auditors and by the Audit from the Offices of the Accountant General of the respective State.
- (b) **Geo-tagging and Identification Mark on the Biogas Plants:** Each Biogas plant should be assigned a unique GPS Coordinates (latitude and longitudes). In order to avoid duplication / wrong reporting and false / fake claims, the unique ID of each biogas plant should be recorded with following details:

- |  |
|--|
| <ol style="list-style-type: none"><li>(i) <i>Unique Biogas ID as per PIA's record:</i></li><li>(ii) <i>Date, month and year of commissioning:</i></li><li>(iii) <i>Name of Biogas Beneficiary Village, Block / Taluka &amp; District:</i></li><li>(iv) <i>Name of Installer /PIA :</i></li></ol> |
|--|

All these details should also match correspondingly with the Office records/documents of biogas plants.

- (c) On prefabricated biogas plants the make/ model and serial number along with year of manufacturing are to be mentioned.
- (d) Besides information uploading on the PIA's website, all the multiple PIAs of the state/UT should share the lists of the beneficiaries of biogas plants with each other before sending the final reports of the year to MNRE.
- (e) The details of TKJF payments should be maintained by the PIA for post verification purpose.
- (f) The dates of visits made by the TKWs/RETs/Biogas Mitras under the warranty period of 5 years, for providing post installation services should be maintained by the PIAs.

**II) Guidelines for Biogas Development Training Centres (BDTC):**

- (a) **BDTC Manpower:** The details of manpower to be engaged on contract basis for the year at 8 BDTC under biogas programme is as under: -



No.	Name of the post	No. of post	Qualification	Emoluments per month
1	Project Coordinator / Investigator (PC / PI)	1	Regular Faculty of Universities/ IITs / Institutes having vast experience in the field of Biogas Technology, working experience in BDTCs / as per university norms in the field of Biogas Technology to be designated as PC of BDTC	Rs. 5000/- fixed
2	Project Officer/ Project Manager	1	M.Tech in Agricultural Engineering / Renewable Energy Engineering with minimum CGPA of 6.50/10.00 or 65% or equivalent Master's Degree with first class division. Should have Metric level certificate of Local/ Regional Language from any recognized Board of Education.	Rs. 42000/- +HRA (as per Govt. norms)
3	Senior Technical Assistant (STA)	1	M. Tech. in Agricultural Engineering / Renewable Energy Engineering/ M.Sc in Natural Sciences or equivalent Master's degree with minimum CGPA of 6.50/10.00 or At least 2 <sup>nd</sup> class Bachelor's degree in Agricultural engineering or equivalent degree with three year's experience in biogas technology sector. Should have Metric level certificate of Local/ Regional Language from any recognized Board of Education.	Rs. 35400/- +HRA (as per Govt. norms)
4	Master Mason	1	Middle class passed or experienced Skilled Biogas Technician / Biogas mason having experience of Biogas plant construction, commissioning and O & M work. Should have completed construction cum maintenance training course on biogas from BDTC's.	Rs. 20000/- +HRA (as per Govt. norms)
5	Plumber/ Biogas Technician/ Junior Project Assistant /	1	Middle class passed or experienced Skilled Biogas Technician or Turnkey Training Certificate or Biogas Mason Training Certificate issued by the BDTCs having experience of Biogas plant construction, commissioning and Operation and Maintenance work.	Rs. 20000/- +HRA (as per Govt. norms)
6	Multi-Tasking Assistant (MTA)	1	Any Degree in relevant subject at least in Second Division with experience of 3 years in handling multiple tasks including office and accounts related work and skilful in computer operations. Knowledge of English and Hindi / Local language.	Rs. 20000/- +HRA (as per Govt. norms)

**Training & publicity:** The trainings will be conducted in consultation with the PIAs /related stakeholders implementing the biogas programme. The BDTCs will also bring out technical booklets on Biogas Plants and success stories and work actively for effective promotion of biogas including technology development by way of increasing efficiency improvements, cost reduction by development of new designs of biogas plant being disseminated under Biogas Programme or to be inducted in future implementation and maintain optimal level of functionality of biogas plants. The BDTCs will submit progress reports with complete details of all activities as assigned by MNRE. Any BDTC may be consulted by the PIA of State/ UT for their services. BDTC's assistance for the State/UT's will be on first-come, first-serve" basis for achieving maximum number of trainings targets of the particular FY.

**(b) Field Inspections by BDTCs:** BDTCs will also conduct random inspections of the biogas plants as per their assigned targets. PIAs should extend full help and co-operation to BDTC's Staff in carrying out



the above inspections on a regular basis. The manpower engaged PIAs and BDTCs or Banks for that matter or by any other Programme Implementing Agencies will not be deemed to be employees of MNRE, Government of India.

#### Guidelines for Monitoring and Physical Inspections

- (a) In order to ensure that incomplete, un-commissioned, bogus/false reporting of biogas plants are not included for reporting and for claiming CFA, it is mandatory that All the newly completed and commissioned biogas plants would be inspected/ verified physically on 100% basis by the PIA's Officials.
- (b) The Administrative Charges given to PIA may be utilized for the purpose of monitoring, strengthening outreach of the Scheme and extension of the Biogas Programme
- (c) Monitoring of the Biogas plants (above 25 to 2500  $M^3$ ) would be done by the respective PIA. After receiving the project completion and commissioning report from the designated PIA, the MNRE will assign the work of monitoring and inspection to a third party.

#### Guidelines for Submission of Progress Reports and Settlement of Claims and Accounts

- (a) A monthly progress report (MPR) should be sent to MNRE by the 5<sup>th</sup> of the following month.
- (b) The flow of funds for the scheme will be through PFMS only. Timely settlement of accounts is a must for smooth flow of further funds under the Biogas scheme. The CFA (Beneficiary's subsidy and Turnkey fee) will be released corresponding to the reported achievements on quarterly basis to the PIAs on production of Claim in prescribed format, list of beneficiaries, UC and SoE.
- (c) The administrative charges and support for trainings to PIA will be reimbursed at the end of FY corresponding to the final achievements reported against the allocated annual targets upon receipt of the Utilization Certificate (UC) and ASoE in respect of the previous funds released.
- (d) The PIAs and BDTC should submit audited statement of expenditure as early as possible after the close of the financial year, latest by 30<sup>th</sup> September of the year, following the closure of the implementation year (Financial Year).
- (e) The firm figures of physical achievements of a year with complete details of all the biogas plants shall be reported to MNRE by 30<sup>th</sup> June of the year following the closing of the Financial Year.
- (f) Completion Certificates (CCs) in respect of all the commissioned biogas plants and reported as achievements of the year to the MNRE will be maintained and kept safe in the records/plant documentation for Post - Audit verifications and plant inspection purposes.
- (g) Similarly, the monitoring of the biogas plants (above 25 to 2500  $M^3$ ) shall be done by the respective PIA. After receiving the project completion and commissioning report from the designated PIA, the MNRE will assign the work of monitoring and inspection to a third party. The following documents shall be submitted before CFA release by the MNRE for biogas plants (above 25  $M^3$  to - 2500  $M^3$ ):
  - (i) Joint Project Commissioning report of the Project;
  - (ii) Performance data as per clause III;
  - (iii) Photographs with Name, Address & Display Board;
  - (iv) Inspection report by Third Party/ BDTC;
  - (v) Audited statement of expenditure; and
  - (vi) Bank mandate form

- (h) In case if any irregularity is brought to the notice of Government of India and including fraudulent claim(s) is detected subsequently at any point of time even after the final settlement of the accounts the CFA / Subsidy paid will be recovered in full along with penal interest and the decision of Secretary, MNRE, Government of India, in such matters would be final and binding on the PIAs.



**Annual targets for installation of small biogas plants under Biogas Programme for FY 2022-23.**

State	State PIA	Nos. of Biogas Plants Target for 2022-23 (Category - wise)				Target for sanitary Toilet's linked Biogas Plant	Nos. of Biogas Training Courses			
		General	SC	ST	Total		CCMs	TKWT	STC	Users
Andhra Pradesh	NREDCAP	1500	400	100	2000	400	4	1	1	20
Arunachal Pradesh	APEDA	30	10	10	50	10	2	1	1	10
Assam	FDA	700	300	200	1200	300	2	2	1	30
Bihar	RDD	75	50	25	150	50	1	1	1	10
Chhattisgarh	CREDA	500	200	100	800	200	2	2	1	25
Goa	Agri. Dept.	30	10	10	50	10	1	1	0	5
Gujarat	RDD	200	75	25	300	150	2	1	1	15
Haryana	RDD,	70	20	10	100	50	1	0	1	10
Haryana	Agri Deptt.	300	80	20	400	120	1	1	1	10
Himachal Pradesh	RDD	30	10	10	50	10	1	1	1	5
Jammu & Kashmir	RDD	30	10	10	50	10	2	1	1	5
Jharkhand	RDD	20	15	15	50	10	2	2	1	5
Karnataka	RDPRD	1000	400	200	1600	800	2	2	2	20
Kerala	Agri Deptt.	250	100	50	400	200	1	1	1	10
Kerala	RDD	150	25	25	200	50	2	1	1	15
Madhya Pradesh	MPSAIDC	2000	500	400	2900	400	4	1	1	30
Maharashtra	RDD	4500	1000	500	6000	2500	4	2	1	20
Manipur	RDD	20	20	10	50	10	1	1	1	10
Meghalaya	MNREDA	20	20	10	50	10	1	1	1	5
Mizoram	DA&V	20	15	15	50	10	2	1	1	5
Nagaland	RDD	20	15	15	50	10	2	1	1	5
Nagaland	RDD	20	15	15	50	10	3	1	1	20
Odisha	OREDA	80	50	20	150	50	4	2	1	25
Punjab	PEDA	700	250	50	1000	400	4	2	1	25
Puducherry	RDD	30	10	10	50	10	1	1	-	5
Rajasthan	RDD, BFA	150	100	50	300	150	2	1	1	10
Rajasthan	RDD, BFA	150	100	50	300	150	1	0	-	5
Sikkim	SREDA	30	10	10	50	10	1	1	1	5
Tamil Nadu	RDPRD	120	50	30	200	70	1	1	-	10
Tamil Nadu	RDPRD	50	30	20	100	50	1	1	-	10
Telangana	RDD	60	25	15	100	20	1	1	1	10
Tripura	TREDA	60	25	15	100	20	2	1	1	15
Tripura	UPNEDA	175	50	25	250	80	2	1	-	10
Uttar Pradesh	UREDA	50	30	20	100	30	1	1	-	10
Uttarakhand	UREDA	50	30	20	100	30	1	1	1	10
Uttarakhand	RDD, Pauri	60	30	10	100	30	2	0	-	10
Uttarakhand	RDD	70	20	10	100	20	-	-	-	5
West Bengal	RDD	30	10	10	50	10	-	-	-	5
West Bengal	RDPRD	30	10	10	50	10	1	0	-	5
A&N Islands	RDPRD	30	10	10	50	10	10	6	2	30
D & N Haveli	RDPRD	30	10	10	50	10	10	6	2	30
D & N Haveli	KVIC*#	1500	700	300	2500	700	2	2	2	15
KVIC, Mumbai	KVIC*#	1500	700	300	2500	700	2	2	2	15
KVIC, Mumbai	NDDDB#	700	150	50	900	250	2	2	2	15
NDDDB, Anand	NDDDB#	700	150	50	900	250	2	2	2	15
<b>Total</b>		<b>15300</b>	<b>4800</b>	<b>2400</b>	<b>22500</b>	<b>7200</b>	<b>73</b>	<b>44</b>	<b>32</b>	<b>460</b>

\* Including 250 Plants for NER states.

# All India basis for KVIC and NDDDB.

**Note:** Overall achievements (General+ SC+ ST) for each PIA are allowed to exceed by 10% of the total annual allocated targets.

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