

E-File No. 253/17/2017-BIOGAS
Government of India
MINISTRY OF NEW AND RENEWABLE ENERGY
(Biogas Division)

Block No.14, C.G.O. Complex,
Lodi Road, New Delhi-110003

Dated: 11.06.2020

ORDER

Subject: Continuation/Extension of ongoing public funded Central Sector Scheme, "Biogas based Power Generation (Off-grid) and Thermal energy application Programme (BPGTP)" beyond 31.03.2020 and during 2020-21-reg.

In continuation of this Ministry's Administrative Sanction-cum-Guidelines issued vide sanction No. 253/17/2017-BIOGAS dated 29.11.2018 for implementation of the Central Sector Scheme, Biogas based Power Generation (Off-grid) and Thermal energy application Programme (BPGTP) upto 31.03.2020, the undersigned is directed to convey the approval of the President of India, for the Continuation/Extension of the above ongoing public funded Central Sector Scheme, "**Biogas based Power Generation (Off-grid) and Thermal energy application Programme (BPGTP)**" beyond 31.03.2020 and during 2020-21 with the same terms and conditions as laid down in the Administrative Sanction-cum-Guidelines issued vide sanction No. 253/17/2017-BIOGAS dated 29.11.2018 and until any further change/amendment by this Ministry, if any.

2. Further, the ongoing scheme, BPGTP is being continued for implementation during the F.Y. 2020-21 as per the same Terms & Conditions as laid down in the Administrative Sanction-cum-Guidelines of the BPGTP scheme dated 29.11.2018 as mentioned above and without any change in the scope, nature, coverage and creating additional posts till 31st March, 2021 or till the date the recommendations of 15th Finance Commission (FC) come into effect, whichever is earlier.

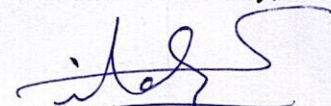
3. This scheme continuation sanction order is issued in exercise of the powers conferred on the Ministry and in consultation & with the concurrence of IFD of this Ministry vide their Dy. No. 27 dated 20.04.2020.

4. This has the approval of the competent authority, Hon'ble Minister of State (I/C) for Power, New and Renewable Energy & MOS for SDE on 05.06.2020.

Encl: Administrative Sanction-cum-Guidelines (No. 253/17/2017-BIOGAS dated 29.11.2018)

To,
**The Pay and Account Officer,
Ministry of New and Renewable Energy,
New Delhi**

Yours faithfully,



(S. R. Meena)


Scientist-C (Biogas)

Copy to:

1. Principal Secretaries/Secretaries of the State's Agriculture Departments – All States/ Union Territories concerned
2. Principal Secretaries/Secretaries of the State's Rural Development Departments – All States/ Union Territories concerned
3. Principal Secretaries/Secretaries of State Nodal Agencies for Renewable Energy – States and Union Territories concerned.
4. Heads of State Nodal Agencies for Renewable Energy – States and Union Territories concerned
5. Principal Secretaries/Secretaries of Dairy Co-operatives of States/UTs
6. Chief Executive Officer, Khadi and Village Industries Commission, Mumbai.
7. Chairman, National Dairy Development Board, Anand, Gujarat.
8. Dean/Director of the concerned Universities / IITs, where Biogas Development and Training Centers (BDTCs) under MNRE scheme NNBOMP are functional/.
9. PIs/ PCs of all the 8 Biogas Development and Training Centers(BDTCs) under MNRE, scheme NNBOMP.
10. Chairman and Managing Director, Indian Renewable Energy Development Agency, New Delhi.
11. Chairman, National Bank for Agriculture and Rural Development (NABARD), Mumbai.

Copy for information: -

1. PS to Hon'ble Minister of State (I/C), Power and NRE.
2. Sr. PPS to Secretary, MNRE, New Delhi.
3. The Principal Director of Audit (Scientific Deptt.), DGACR Building, I.P. Estate, New Delhi.
4. The Principal Director (Local Bodies Accounts) or Director (Local Bodies), Office of the Comptroller and Auditor General of India, 9 Deen Dayal Upadhyaya Marg, New Delhi.
5. Sr. PPS to JS & FA, MNRE
6. Sr. PPS to JS (Bio-Energy), MNRE.
7. PPS to Adviser (Biogas)/Scientist 'G', MNRE
8. All Group Heads and Advisers (Sc. G), MNRE
9. DS (Finance), US (F) MNRE.
10. Individual files of States/UTs/Agencies/Guard file.
11. Director, NIC, MNRE for uploading on MNRE Website.
12. Concerned E-file No. 253/17/2017-BIOGAS



(S. R. Meena)
Scientist-C (Biogas)

E-File No. 253/17/2017-BIOGAS
Government of India
Ministry of New and Renewable Energy
(Biogas Technology Development Division)

**Block No.14, C.G.O. Complex,
Lodi Road, New Delhi-110003**

Dated: 29.11.2018

To,

1. Chief Secretaries of State Governments.
2. Principal Secretaries/ Secretaries of Agriculture & Rural Development Departments of States and Dairy Co-operatives.
3. C.E.O., Khadi and Village Industries Commission, Head Office, Mumbai.
4. MD, Indian Renewable Energy Development Agency, (IREDA), New Delhi.
5. National Bank for Agriculture and Rural Development (NABARD), Head Office, Mumbai.
6. Principal Secretaries of State Renewable Energy Departments.
7. Heads of all State Nodal Agencies for Renewable Energy-States & UTs concerned.
8. PIs of All Biogas Development and Training Centres (BDTCs).
9. Heads Offices of all PSU / Pvt. Sector Banks.
10. Chairman, National Dairy Development Board (NDDB), Anand, Gujarat.

Subject: Administrative Sanction -cum-Guidelines for implementation of the Central Sector Scheme, Biogas based Power Generation and Thermal Application Programme (BPGTP) during 2017-18 to 2019-20 (beyond 12th Five Year Plan Period) – reg.

Sir,

I am directed to convey the sanction of the President of India to the continuation of implementation of the Biogas based Power Generation (Off-grid) Programme (BPGP) during the financial year 2017-18 to 2019-20 as a modified Central Sector Scheme after the end of 12th Five Year Plan Period as **Biogas based Power Generation & Thermal application Programme (BPGTP)** at a total outlay of Rs.34.80 crore (Rupees Thirty Four Crore Eighty Lakh Only). The year-wise break-up of the estimated outlay for Biogas Power Generation (Off-grid) Programme during the period 2017-18 to 2019-20 and including the past liabilities of the 12th Five Year Plan, is given at para 14.3 below. The details of the Scheme for projects related to Biogas based Power Generation (Off-grid) and Thermal application Programme (BPGTP) in the power generation capacity range of **3 KW to 250 KW or Equivalent Thermal Energy from biogas plants of same size ranging from 30 Cubic Metre to 2500 Cubic Metre per day** are given at Annexures I to III. The above mentioned programme / scheme will be implemented during 2017-18 to 2019-20 that is for the remaining period of the 14th Finance Commission Period ending on 31st March, 2020. The new Administrative Sanction-cum-Guidelines of BPGTP Scheme will be applicable w.e.f. 26.11.2018. Thus, the previous scheme, BPGP Administrative Approval will be applicable up to 25.11.2018.

The subject mentioned Scheme BPGTP is a modified new scheme of Biogas based Power Generation (Off-grid) Programme after its continuation beyond 12th Five Year Plan, as Biogas Power Generation (Off-grid) and Thermal application Programme (BPGTP) and will be implemented according to these guidelines and other provisions contained in this Administrative Sanction-cum – Guidelines of the Scheme, BPGTP, as under:-

1. Biogas Power Generation (Off-grid) and Thermal application Programme (BPGTP):

1.1 Biogas plants are reliable source of decentralized Renewable Energy for heating, cooking as well as generating electricity/ power generation and thermal energy application alternatives in our country. In order to promote this Decentralized Renewable Energy Source (DRES) of power generation, specifically in the small capacity range (3 kW to 250 kW) and thermal energy for heating/cooling from the biogas produced from Biogas plants of 30 M³ to 2500 M³ size, operated based on the availability of required quantity of biodegradable organic waste(s). The scheme has been redesigned to enlarge its pan –India base. The feed stocks for biogas plants that is waste(s) in required quantity and its availability at plant site matching with the biogas plant size from Biomass sources in a sustained manner for a longer period of 15 to 20 years is one of the major parameters for project site selection and feasibility. The eligible feed stock for the purpose of setting up Biogas Plants under this scheme are biomass wastes such as cattle dung/ animal wastes, food & kitchen waste, poultry dropping waste in single mode or with mix of poultry waste and cattle dung/ goat & sheep dropping , paddy straw , green grass including elephant grass/ Napier grass grown specially for biogas plants. Wastes from rural based Industries such as residue/ effluents from Agro Processing Industries and Food Processing Parks/ Units, Agriculture Farms/ Dairy Farms, Gaushalas and Milk Processing effluents from all dairies, wastes from Sago, Tapioca and Starch Industries and Forest Biodegradable Residue including specially grown energy crops in forests and forest fringe villages, waste lands etc. which do not interfere with the Food and Feed Chain.

1.2 A number of projects of different capacities and applications will be taken up for promotion, deployment and dissemination of new Technology including developing manpower skill through Biogas Development and Training Centers (BDTCs) , Skill Development Council of India and necessary infrastructure, establishing a proper post installation / commissioning arrangement of operation & maintenance and large scale dissemination through self-sustainable biogas plant operators Organizations/ Rural Energy Technicians/ Biogas Developers etc.

1.3 The BPGTP Programme will be implemented by the Agriculture and Rural Development Departments of the States and Dairy Cooperatives. However, the programme can also be implemented through the State Renewable Energy Agencies (SNAs), Biogas Development and Training Centres (BDTCs), Khadi and Village Industries Commission (KVIC) and National Dairy Development Board (NDDB) in States where Agriculture and State Rural Development Departments are not in a position to implement the above mentioned scheme. The Programme Implementing Agencies (PIAs) may take help of Panchayati Raj Institutions/ Local Bodies (LBs) as an overarching Institutions allowing need based interventions under the community development programme in rural areas as well as areas to cover North Eastern Areas, Forest Fringe Villages, in large population concentration of SC/ ST communities including in tribal areas.

1.4 Dairy Co-operatives/ Co-operative Milk Federations would be responsible to ensure that Individual Dairies should set up such Biogas power/ Thermal application plants. The Rural Industries will also be covered under the Scheme except the industries and commercial establishments covered under Urban, Industrial & Commercial Applications (UICA) under the Waste to Energy Programmes of the MNRE. The power / biogas generated from the biogas plants under the Scheme BPGTP can be utilized by those eligible Industries under the scheme for auxiliary consumption, captive consumption and also for sale of electricity to individual/ community on mutually agreeable terms. For selection of feasible site and potential beneficiary and the project feasibility, the Programme Implementing

Agencies/ Organizations as mentioned in para 1.3 above including biogas developers/ manufacturers must 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 15 years and the beneficiary organization gives an undertaking on specified stamp paper (Non-judicial) that the biogas plant / project would be maintained and operated for a minimum period of 15 years.

1.5 If a biogas plant / project under this scheme found non-functional at any point of time later on after its commissioning during the period of 15 years as committed by the plant end-user by submitting as above, the beneficiary concerned will be liable to refund the subsidy /CFA amount availed from the Government. The status of non-functional/ non-operational project would be judged and decided based on the physical verification and inspections by the third party engaged and entrusted by the Ministry of New and Renewable Energy, Government of India for the purpose. In the event of any such issue cropping up at the subsequent stage, the decision of the Secretary, MNRE, Government of India, will be final and binding on all concerned.

2. Central Financial Assistance (CFA) for setting up Biogas Plants under the (BPGTP):

The applicable rates of CFA/ Subsidy for setting up of Biogas based Power Generation (Off-grid) and Thermal application projects are provided in three slabs of sizes of Biogas Plants and corresponding Power generation/ Thermal Energy generation capacity. **The details of applicable CFA for SCs/STs category beneficiaries/ communities of all States and all category beneficiaries of the entire North East Area States including Sikkim are given in Annexure-II A and the same for all other category beneficiaries/ communities of all other States are given in Annexure-II B. In all the projects categories, the CFA will be paid on re-reimbursement basis, except for the SC & ST categories where in the CFA at the rate of 50% of the estimated CFA of the project will be given at the middle of the project execution and the balance 50% after proper completion and commissioning of the project in all respect.**

3. Training & Awareness Promotion

3.1 The Programme under this component of the Scheme provides financial support for organizing and conducting special designed workshops, seminars, training programmers for the Programme Implementing Agencies and Biogas Plant Users/ farmers by the MNRE approved Biogas Development and Training Centers (BDTCs) / Skill Development Council etc. with the objectives of developing the required specifications and standards as well as standard plant operating procedures (SPOPs) thereby enhancing overall performance of the biogas projects and usage of organic Bio-manure produced from these projects. CFA support will be also provided for establishing a trained pool of manpower/ Skilled Biogas Plant Operators for post-commissioning operation and maintenance mechanism, training of required manpower, capacity building, business meets for the prospective industries, etc. with the ultimate objective of promotion of power generation as well as thermal energy production for various usage based on biogas production in the country.

3.2 The quantum of Central Financial Assistance (CFA) to be provided by the Government of India, Ministry of New and Renewable Energy (MNRE) for conducting the above training/awareness programmes will be decided on the basis of nature & duration of the programme event, number of participants, etc. and the proposal received from the BDTCs. **The**

maximum assistance, however, is limited to Rs.1,00,000/- (Rupees One Lakh Only) per event subject to the actual.

3.3. The third component of the CFA will be for providing as Administrative Charges to the designated Programme Implementing Agencies (PIAs) of the BPGTP Scheme detail as given in para-1.3 above, for preparing site feasibility report, DPRs, project implementation, supervision, monitoring and evaluation of plant performance after the project completion and commissioning including third party evaluation inspection and verification after the successful commissioning of the project. The project completion and successful commissioning report will have to be submitted by the designated Programme Implementing Agencies of the BPGTP Scheme as mentioned above in para-1.3. Based on the commissioning report of the designated PIAs the project would be inspected by a third party to bring out after conducting the physical inspection/verification the assessment of the performance output parameters as declared in the project report and application and as approved by the MNRE in its Administrative Sanction of the project. The applicable rate of the Administrative Charges for the all above is payable to the designated PIAs as given in para 1.3 above, as per the pattern given in **Annexure-II A** and **Annexure-II B**.

3.4 The commissioning of the projects would mean that the approved capacity of the project has been commissioned to produce/generate the desired quantity of biogas in cubic metre per day as per the declared size of biogas plant and the capacity of power generation in KWhr/day for minimum 10 hours operation daily out of the 24 hours. The Project Developer and the Beneficiary Organizations will have to ensure and give Guarantee that the operation of the Biogas Plant will always be maintained not below the 70 % of the rated capacity of the Biogas Generation Capacity.

4. Project Submission to MNRE

4.1 The Biogas Power Generation (Off-grid) and Thermal application Programme of MNRE will be implemented for setting up of proven standard design specifications and proven Biogas Plants including use of various material and equipment such as 100% Biogas Engines, Biogas Engines of 80:20 biogas -diesel ratio for matching size electricity Generators and accessories and required input and output measuring systems of energy metering and biogas flow meter with precision and daily logging of operational hours of the biogas plants for their intended end usage. Such Biogas Plants would be operated for effective promotion of biogas based decentralized power generation in the range of 3 kW to 250 kW and also for thermal/ cooling applications as given in this Administrative Sanction-cum-Guidelines of the scheme. The Central Financial Assistance (CFA) will be provided based on power generation capacity of biogas plants worked out @ 1 m³ biogas generating 1.250 kW (min.) of power or equivalent thermal energy generation capacity of biogas plants at half the applicable rate for power generation, which ultimately depends upon the generation of biogas in cubic metre per day from the Biogas plants, set up for the project and its optimal functionality by the end users, beneficiaries and plant operators.

4.2 The proposals of the projects under the scheme will be developed and prepared with a complete knowledge of biogas generation through Anaerobic Digestion (AD) process from the available and proposed feeds stocks and requirement of power/ thermal load/cooling load and its handling management at the users end. The proposals will be submitted by the designated Programme Implementing Agencies (PIAs) of the Scheme (as mentioned in para-1.3 of the Guidelines) to the MNRE in the format as annexed to this **Administrative Sanction-cum-Guidelines** as **Annexure-III A** and **Annexure III-B**. The complete details of cattle holding at the proposed plant site /quantity of feeds stock available, estimated power to be generated with a minimum of 10 hours of

operation per day (i.e. in 24 hours duration), load distribution and connected load, details of biogas plants such as design type and model as well as daily design capacity of biogas generation with a particular kind of feed stock/mixed feed stocks, biogas plant digester Volume and HRT in days/hours. The performance rating of biogas engines, biogas generators, power control units, biogas scrubbers and the capacities of connected load of various appliances and biogas consumption rates in cubic metre per hour in case of the thermal applications such as Biogas Burners and furnace/boiler capacity and cooling requirement in cubic metre per hour or per TR to be operated on biogas and other accessories with make and cost of each item should be included in the proposal.

5. Standard Plant Machinery and Equipment under the Projects

5.1 The equipment for the projects should conform to the existing Standards applicable for Biogas Plants, Biogas Engines, biogas dual fuel engines, Generator Sets, Gas Scrubbers, energy meters, biogas flow meters including biogas plants wherever applicable as brought out by BIS and ISO etc. The equipment included for configuration in the project should also meet all the requirements of pollution control Boards including Water and Air Pollution (Prevention and Control) Acts and noise pollution act. **In case of projects installed for thermal energy usage, biogas flow meter will be deployed for biogas plants of above 100 cubic metre size.** All biogas plants of biogas generation capacity of above 100 cubic meter per day for thermal/ cooling applications will necessarily deploy standard Biogas flow meter for measuring biogas generated from the biogas plants and record its daily reading for logging of annual biogas generation and corresponding quantity of input material/ feed stock fed in Kg. per day. The project performance data to be recorded in the prescribed proforma given in **Annexure- IV and Annexure- V.**

5.2 The Biogas Plants of size upto 100 cubic metre size will necessarily have recorded details of daily exact quantity of feed stock fed into the digester of the biogas plant in Kg. per day and also types of feed stocks for working out the plant performance data as required for reporting by filling in 3 months operating data sheets for the purpose of completion and commissioning of such projects. Similarly, all the biogas power generating projects above 12 KW (Biogas plant capacity > 100 Cu. M.) capacity power generations will be equipped necessarily with energy meters for recording reading of daily electricity (KWh) generated for logging. But biogas plants of size smaller than 100 cubic metre will have recorded details of daily feedstock in Kg. / day fed into the biogas plant digester as mentioned above. All these data recording as mentioned above will form the basis for judging the plant operational performance and shall form the part of completion and commissioning reports of the projects. **The above mentioned performance data of the plants are to be recorded in the prescribed proforma given at Annexure- IV and Annexure-V and submitted as completion and commissioning report of the projects.**

6. Biogas Plant Appliances for Cooking

6.1 In order to give 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 in manufacturing techniques, for materials, design, maintenance and finish. The thermal efficiency shall be more than 55% for each burner. Only double/multi burner biogas stoves/chullhas should be deployed for use of cooking/heating. Where the biogas stoves are to be purchased by the beneficiaries themselves, they should be advised by the Programme Implementing Agencies (PIAs) and kept informed of the above details of ISI marked Biogas Stoves. The names of ISI Marked stoves and their Manufacturers, prominent locations of availability,

shops/market places of BIS Standard Mark Biogas Stoves and their spare parts, should be also covered and included in the information and publicity material of biogas plants.

7. Implementation

7.1 As mentioned in para-1.3 above, the Programme will be implemented by Agriculture and Rural Development Departments of the States and Dairy Co-operatives. However, the Programme can also be implemented through the State Renewable Energy Agencies (SNAs), Biogas Development and Training Centers (BDTCs), Khadi and Village Industries Commission (KVIC) and National Dairy Development Board (NDDB) in States where Agriculture and State Rural Development Departments are not in a position to implement the above mentioned scheme as designated Programme Implementing Agencies (PIAs) of the States, **involving reputed Biogas Developers/ Promoters/ Manufacturers, who are selected on a transparent manner by the above mentioned Programme Implementing Agencies.** The above mentioned Programme Implementing Agencies are required to submit proposals on prescribed format as given at **Annexure-III A or Annexure-III B along with the DPR for projects above 10 KW capacities.** Funds for implementation will be disbursed through the above mentioned designated Programme Implementing Agencies, viz. State Agriculture Departments /SRDDs/ Dairy Co-operatives/ KVIC/BDTCs/NDDB as the case may be. The extent of administrative charges to be provided to the designated implementing organizations is given in **Annexure-II A and Annexure-II B.** Installation of projects should be encouraged by the Programme Implementing Agencies and proposals be submitted after having done duly the site feasibility assessment and if specific responsibilities are taken up by the users Organizations/Institutions/ Project Developers right from the initiation of project to operate and maintain it for the specified period as per DPR norms for a minimum period of 15 years and also operating the plants at about 70% of the rated capacity of biogas generation. All the User Organization/Beneficiaries will have to provide **an undertaking** in the above regard in the prescribed proforma as given at **Appendix-II.**

8. Project Performance Reports and Data base:

8.1 The performance database of projects after their completion and commissioning will be recorded on daily basis at the project site by the beneficiary Organizations/ biogas plant manufacturers/ developers as the case may be under the supervision of the above designated main Programme Implementing Agencies/Departments of the State/UT as given in para 1.3 and 7.1 above. The major performance data of the plant to be recorded are filling of daily performance outputs for 3 months continuous period includes quantity of daily feeds stock fed into the biogas plant digester (kg. or in tons/day) in required ratio of feedstock and water, biogas generation from gas flow metre in cu. metre per day and power generation/energy units generated to be read and recorded from energy metre reading (KWh/ day), daily total operating hours of the plants and various usage of the plant on daily basis i.e. power consuming appliances as per the connected load in case of power generating projects and Biogas consumption units in case of thermal / cooling usage.

8.2 They will be also responsible for proper slurry management, sanitation in and around the plant and its safe disposal for useful gains as an Organic Bio-manure, including development of downstream market linkages for tie-up and sale of organic Bio-manure of Biogas plant. All the projects will be operated for a minimum of 10 hours per day at their optimal capacity. The project performance data need to be recorded from the performance measuring instruments/

biogas flow meters, energy meters etc. and submitted in the prescribed pro-forma as given in **Annexure-IV** which is comprising of the following-

- (i) daily power generation and / or daily biogas generation, as the case may be, at about minimum of 70 % of the approved generator capacity/ Biogas generation capacity of the plant for three months duration measured daily and logged after successful commissioning of the project in the prescribed proforma as given in **Annexure-IV** and
- (ii) 72 hours plant operation at 80% of the rated capacity of power generation and / or biogas generation capacity based on the 10 hours daily plant operation and for 8 consecutive days of operation should be measured and recorded in the prescribed proforma as given at **Annexure-V** of Project Performance given in these Guidelines.
- (iii) Project Completion and Commissioning Report duly checked, accepted and issued by the Programme Implementing Agency along with the date of commissioning of the project in the prescribed proforma given in the **Annexure-VI**.
- (iv) The third party Inspection Report after commissioning of the project and completion of the necessary recording of the plant performance data as mentioned above in point (i) and (ii) for at least about 98- 100 days of stabilized operation as mentioned above.

8.2 If the end user/ beneficiary does not have daily 10 hours requirements after commissioning over a period of time, he should also make arrangements and suitable agreements for localized sale of surplus Biogas/ power generated to third party to generate income or allow other entrepreneurs to uptake the surplus Biogas/ power as per agreed terms and conditions between the beneficiary of the project and Biogas Entrepreneur/ Biogas Developer. The entrepreneurs may also distribute the power generated/ biogas generated to the households / small industries in the vicinity of the project. Here, the DISCOMs could also become a good link between the biogas developers/ entrepreneurs and user organization/ beneficiaries.

9. Project Completion and Commissioning

9.1 The installation work of the project should be started soon after issuance of the Administrative Sanction of the project by the MNRE if the project is to be taken up under this MNRE scheme. The completion and commissioning of projects in all respects should be completed within a year and in any case not more than 18 months from the date of the Administrative Sanction of the project sanctioned by MNRE. If a project is not completed within the maximum period of 18 months and there are genuine reasons for delay in completion of the project, the same will have to be brought before the MNRE and for seeking extension of project completion period. If no completion and commissioning report of a project is submitted up to 24 months after the Administrative Sanction date of the project, the MNRE may take up the process of cancelling the Administrative Sanction of the Project.

9.2 The condition for successful commissioning of projects would be as under:-

The project after its successful completion and commissioning date, the user agency will have recording of operational performance data for post successful commissioning period under the direct supervision of the designated Programme implementing agency of the State /UT concerned for at least three months continuous period and further operation of the project for a **total 72 hours** continuous (in series) i.e. **at least for 8 consecutive days continuous operation at a minimum of 80 % of the rated power generation capacity or 80% of the Biogas generation capacity in case of thermal/cooling application** which should be supported

by readings measured and recorded/ logged data of the project and verified by the Officers of Programme Implementing Agency (PIA). The completion and commissioning report will be submitted by the programme implementing Agencies in the prescribed proforma as given in **Annexure IV**, Annexure-V and **Annexure-VI**.

1. The project developer and main programme implementing agency including end-user will have to provide operational performance data of the biogas power generation and biogas generated etc. to the MNRE in a format specially developed for the purpose for the three months post commissioning of the project in the **Annexure –VI** as mentioned above and thereafter for the same on yearly basis upto 3 years period.
2. On completion of the project, the Programme Implementing Agencies will submit the project completion and commissioning report with duly signed and affixing the seal of the Head of the Programme Implementing Organization/Agency enclosing therewith the Audited Statement of Expenditure (ASoE) of the project relating it to the respective MNRE sanction Number and date of sanction, for seeking MNRE CFA on re-imbursement basis.
3. The completion and commissioning report will include the following papers/documents for its submission to the MNRE:-
 - (i) Complete technical details of biogas plant with design and drawing, scrubber, biogas engine and generator including power control panel, energy meter and Biogas flow meter and accessories.
 - (ii) Photographs of all above with specifications make, model and address of manufacturers given on plant/equipment/ component including the year of manufacture of Biogas Engine and Biogas Generator/Biogas Scrubber, Gas Flow Meter etc.
 - (iii) Commissioning report with plant operating continuously for 72 hours for consecutive 8 days operation at a minimum of 80 % of the rated capacity with data on power generation/ units or Biogas Generation and its use for thermal applications and daily number of operating hours. In case of thermal application, the biogas generated should be measured by employing biogas flow meters in case of Biogas plants of above 100 M³ and measuring quantity of biogas generated as well as its utilization for thermal/heating/cooling energy applications in terms of total kilo calories utilized per day.
 - (iv) Three months performance report giving quantity of feedstock fed daily in to plant digester on daily basis, biogas generated in m³/day and corresponding power generated in KWhr or thermal energy produced in terms of total Kilo calories per day along with operating hours on daily basis and usage of the electricity/ thermal energy.
 - (v) Signatures of the concerned Officers of the designated Programme Implementing Agencies (PIAs) of the State/UT, Beneficiary and the Biogas plant Developer **mentioning the date of commissioning of the project.**
 - (vi) After receipt of the completion/ commissioning report as above, the third party inspection report by the agency/organization authorized by MNRE will be conducted who would verify from the project site of the above mentioned plant the performance details of biogas power/thermal energy plants, which includes verification of make, design and capacity of biogas plant, biogas generator and biogas power generation/control panel unit installed and power generated certifying the electricity generated with operating hours in a day along with the overall status of the project.

- (vii) The third party Inspection would also specifically mention about the performance and operational status of the project including the use of Biogas and Biogas slurry/management self-use/sale of Biogas organic manure.
- (viii) The Audited Statement of Expenditure should indicate cost of each item of the project, the items of the project verified physically by the Programme Implementing Agencies and cost of each item to be verified by the registered Chartered Accountant Firms. The certified ASOE on the letter Head of CA firm indicating the firm registration number(FRN) and address, CA membership number on their letter heads, linking their Audited Report to the MNRE sanction of the project. The ASOE will be signed by the CA firm and user/beneficiary of the project and countersigned by the concerned officers of the designated Programme Implementing Agencies. However, the cost of the project given in the ASOE should be nearer to the actuals.
- (ix) **The photographs of the plant beneficiary in original should be taken at three different stages viz. (i) empty plant site after its selection (ii) under construction stage at mid-level and (iii) at the time of commissioning. The photographs of the project with proper captions and address of plant site beneath each photo along with photograph of the project display/sign board indicating full name of beneficiary, site address, MNRE Sanction Number, date of sanction and date of commissioning and Project Implementing Agency/ Organization as well as project cost along with the MNRE CFA to be written on the Display Board. The project Display Board with above mentioned details should be placed at the prominent visible place of the project site and photographed.**

10. Maintenance of Projects Records at implementing agency level

10.1 The designated Programme implementing agencies will maintain proper record of the each project implemented by them with all performance data intact. The details of the beneficiaries full address, location of the plant site shall be maintained in a master register of the Biogas based Power Generation and Thermal Application Programme project and along with soft copies of the same which will be put on their website and updated regularly. The same information would be linked to the MNRE website/ MIS portal. The records would also be kept intact for the post audit verifications and inspections of the MNRE Officers and MNRE authorized BDTCs and third party / persons for post commissioning verifications.

11. Release of Central Financial Assistance funds

11.1 Central Financial Assistance (CFA) for duly completed projects and administrative charges to the designated Programme Implementing Agencies are given at Annexure-**II-A** and **Annexure-II-B**. The pattern of release of CFA funds would be, as given below:-

The funds would be released on re-imburement basis after successful commissioning of the biogas based power / thermal plant as per the DPR norms (wherever DPR is required), receipt of utilization certificates, Audited Statement of Expenditure (duly audited by Chartered Accountant Firm and submitted on their letter head). The installation/ commissioning of biogas based power plants should be completed within a year and in any case not more than 18 months from the date of sanction of the project. Project completion and commissioning report along with the required inspection reports and photographs of biogas plants, its equipment and accessories (gas flow meter, energy meter and scrubbers) and power generating systems as explained under Point No.9 above should be submitted to

MNRE by the designated Programme Implementing Agency of MNRE as given in para-1.3 and 7.1 above. The condition of successful commissioning of the plant would, inter-alia, imply generation of power with operational capacity of the sanctioned biogas plants with the power generation data for minimum 3 months period including the plant operational time period and units generated per day. The performance data of three months should indicate the operational capacity of the plants not less than 70% (minimum) of the rated capacity for 3 months period and not less than 80% of the rated capacity for subsequent consecutive 8 days (72 hours).

11.2 In order to maintain plant operational at its optimal level the Developers/ Manufacturer of Biogas Plants or the end-users of the projects may also avail expert help of experienced power management companies such as DISCOMs, but no additional cost of the project on this account would be considered by the MNRE for any CFA support. The designated Programme Implementing Agencies (PIAs) of the States/ UTs and DISCOMS involving SERCs may formulate a scheme at their level on commercial level benefiting the biogas /power generators and the distributors and the beneficiaries.

12. Monitoring and Inspection Mechanism

12.1. The progress of the projects will be monitored monthly by the Programme Implementing Agencies and monthly/quarterly progress report would be submitted to the MNRE on regular basis. The monitoring of the Biogas Power Generation (Off-grid) and Thermal/Cooling application Projects would be done based on half yearly and annual progress reports by the respective Programme Implementing Agency of the States/ UTs as authorized and other designated agencies of MNRE Viz. BDTCs, KVIC, MNRE recognized and appointed institutions in addition to MNRE Officers. The project developers and user organizations/individual beneficiary including Programme Implementing Agencies of the Scheme will extend all help required in monitoring and inspections of the projects.

12.2 After receiving the project completion and commissioning report from the designated Programme Implementing Agencies of States/UTs of the Scheme as designated and given under this scheme in para-1.3 and para-7.1, the MNRE may also assign the work of monitoring and inspection and independent evaluation of the Scheme to a third party.

13. List of required documents for Project Completion & Commissioning and release of CFA under BPGTP scheme.

S N	Particulars of Document	Prescribed Annexure/ Appendix
1	Joint Project Completion and Commissioning Certificate	Annexure-VI
2	Affidavits	Appendix-I and Appendix-II
3	JOINT Technical & Inspection Report (implementing agency)	Annexure-VII
4	Performance data for three months	Annexure-IV
5.	8 Days (72 Hours) operation data at 80% rated capacity	Annexure-V
6	Photographs with Name , Address & Display Board as per para-9.2 (3-ix)	
7	Format for inspection report by Third Party/ Inspection by BDTC	Annexure-VIII
8	Audited Statement of Expenditure by CA Firm on the firms Letter Head mentioning FRN number and CA membership number (Certificate on total expenditure incurred for the project)	Annexure-IX
9	Brief write up of Biogas Power Project	
10	Bank Mandate Form	
11	Cancelled Blank Cheque	

14. Budgetary Provisions for 2017-18 to 2019-20:

14.1 The budgetary provision for implementation of the Programme, BPGTP during the financial-year 2017-18 to 2019-20 amounting to Rs.34.80 crore (Rupees Thirty Four Crore and Eighty Lakh only) will be obtained under Grid Interactive and Distributed Renewable Power (M.H.) Off-grid / Distributed and Decentralized Renewable Power, Biogas Programmes.

14.2. The expenditure on the scheme during 2017-18 to 2019-20 will be met from the budget provision under Biogas Programme as given below:

Head of Account	Description	Allocated Amount (Rs. in Crore) for 2017-18
'2810'-New and Renewable Energy (Major Head)	The expenditure involved is debitable to Demand No. 67, Major Head 2810, New and Renewable Energy, 00.101- Grid Interactive and Distributed Renewable Power, (Minor Head) 02-Off-Grid / Distributed and Decentralized Renewable Power 06- Biogas Programme, 02.06.35 Grants for Creation of Capital Assets, 2017-18 and Budget allocations for 2018-19, 2019-20.	Rs 5.50 Crore. (Rupee Five Crore and Fifty Lakh only)

An amount of Rs. 5.50 crore was earmarked internally for the year 2017-18 including funds to meet committed liabilities of 12th Five Year Plan.

14.3 The year-wise cost estimates on the basis of numbers of projects targeted and tentative cost estimates received from the previous programme implementing agencies. The total cost estimates, year-wise fund requirement for the scheme is ₹ 34.80 Crore over a period of 3 years (2017-18 to 2019-20) as per detail as follows:

S. No.	Year	Total Budget Outlay ₹ (Rs.in Crore)
1	2017-18	5.50*
2	2018-19	13.00
3	2019-20	16.30
	Total	34.80

*An amount of Rs. 5.50 crore had been earmarked internally for the year 2017-18 including funds to meet committed liabilities of 12th FYP.

14.4 Each proposal will be examined and concurred in by the Integrated Finance Division of the Ministry, on case-to-case basis. After concurrence by the IFD an Administrative Sanction of the Projects will be issued by the Programme Division after seeking approval of the competent Authority, Secretary MNRE.

14.5 All the designated Programme Implementing Agencies for this Programme viz. State Agriculture and Rural Development Departments and Dairy Co-operatives, State Renewable Energy Agencies (SNAs), Biogas Development and Training Centers (BDTCs), Khadi and Village Industries Commission (KVIC) and National Dairy Development Board (NDDB) as the case may be, are requested to initiate the actions for implementation of Biogas based Power Generation (Off-grid) and Thermal application Programme (BPGTP) during the year 2018-19 to 2019-20 as per the above mentioned norms of this scheme of MNRE. Only firmed up project proposals as per this Administrative Sanction-cum-Guidelines should be submitted to this Ministry for consideration and approval. The careful site selection and beneficiary selection along with the pre-feasibility report and DPR wherever required, for the project prepared by the above designated

Programme Implementing State Agencies/Departments will be a must and crucial for project proposal submissions.

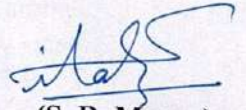
14.6 This sanction issues in exercise of the powers conferred on the Ministry in consultation with the Integrated Finance Division of this Ministry vide their **Diary Number 289 dated 04.09.2018** and approval of the competent authority, Hon'ble Minister, NRE on **26.11.2018**.

14.7 Though MNRE not insisting any yearly physical targets for setting up the project under this Scheme but the States/UTs may plan in advance and submit their target to MNRE.

14.8 In case of any ambiguity in interpretation of any of the provisions of these Administrative Sanction-cum-Guidelines of the Biogas based Power Generation and Thermal Programme (BPGTP), the decision of the Secretary, MNRE, Govt. of India, will be final and binding on all concerned stake holders. The Ministry reserves the right to change or amend these guidelines of the Scheme as and when deemed necessary to do so.

15. Receipt of these Administrative Sanction –cum- Guidelines for the implementation of the Biogas based Power Generation and Thermal Energy Application Programme (BPGTP) may kindly be acknowledged.

Yours faithfully,



(S. R. Meena)

Scientist-C (Biogas)

To,

1. Principal Secretaries/Secretaries of the State's Agriculture Departments – All States/ Union Territories concerned
2. Principal Secretaries/Secretaries of the State's Rural Development Departments – All States/ Union Territories concerned
3. Principal Secretaries/Secretaries of State Nodal Agencies for Renewable Energy – States and Union Territories concerned.
4. Heads of State Nodal Agencies for Renewable Energy – States and Union Territories concerned
5. Principal Secretaries/Secretaries of Dairy Co-operatives of States/UTs
6. Chief Executive Officer/Dept. Chief Executive Officer, Khadi & Village Industries Commission, Mumbai.
7. Chairman, National Dairy Development Board, Anand, Gujarat.
8. Dean/Director of the concerned Universities / IITs, where Biogas Development & Training Centers under MNRE are located.
9. PIs of all the 8 Biogas Development & Training Centers under MNRE.
10. Chairman and Managing Director, Indian Renewable Energy Development Agency, New Delhi.
11. Chairman, NABARD, Mumbai.

Copy for information:-

1. **The Pay & Account Officer, Ministry of New and Renewable Energy, C G O Complex, New Delhi-110003**
2. The Accountant General (Audit) - All States/UTs.
3. The Director of Accounts - (All States/UTs).
4. The Principal Director of Audit (Scientific Deptt.), DGACR Building, I.P. Estate, New Delhi.
5. The Principal Director (Local Bodies Accounts) or Director (Local Bodies), Office of the Comptroller and Auditor General of India, 9 Deen Dayal Upadhyaya Marg, New Delhi.
6. Secretary, Finance/Planning Department (All States/UTs).
7. RBI, Bombay/NABARD, Bombay.
8. Ministry of Statistics and Programme Implementation, New Delhi.
9. PS to Hon'ble Minister, Power and NRE.
10. PPS to Secretary, MNRE, New Delhi.
11. PS to AS and Financial Adviser, MNRE, New Delhi.
12. PPS to JS (ANS).
13. PS to Adviser (Biogas)/Scientist 'G' (GLM).
14. All Group Heads, JS/ Advisers (Sc. G), MNRE.
15. Managing Director, IREDA, New Delhi.
16. All Directors/Scientist 'F', MNRE.
17. US (Fin)/SO (IFD) / SO Budget, MNRE.
18. Individual files of States/UTs/Agencies/Guard file.
19. NIC cell, MNRE.
20. Concerned E-file/Physical File.



(S. R. Meena)
Scientist-C (Biogas)

**GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
(BIOGAS TECHNOLOGY DEVELOPMENT DIVISION)**

A BRIEF CONCEPT OF BIOGAS BASED POWER GENERATION SYSTEM

Biogas technology provides an alternative source of energy mainly from organic wastes. It is produced when bacteria degrade organic matter in the absence of air. Biogas contains around 55-65% of methane, 30-40% of carbon dioxide and small quantities of Hydrogen, Nitrogen, Carbon Monoxide, Oxygen and Hydrogen Sulfide. The calorific value of raw biogas is appreciably high around 4713 Kcal or 20 Mega Joule at around 55% methane concentration that is usually available in raw Biogas). After purification through gas scrubbing/ purification technology, the raw biogas can be purified upto 95% methane purity or even more. The purified biogas called Bio-CNG can effectively be utilized for cooking, industrial applications and generation of power through a biogas based power-generation system after dewatering and cleaning of the gas. In addition, the biogas plants slurry produced in the process provides valuable organic Bio-manure for conventional or Organic farming and help in sustaining the soil fertility and conserving water in irrigation.

1. Components of a Biogas based Power Generation System

- Biogas Plants
- Biogas Flowmeters/ Biogas Ballons for Storage and Storage Meters
- Biogas Cleaning/ Purification System
- Engine with alternator
- Control Panel along with Energy Meter
- Machine Room / Shed
- Manure management system / protocol

2. Biogas plants

Standard KVIC floating drum model (vertical or horizontal type) , modified KVIC floating dome Plants, Fixed dome type including Solid State design/ CSTR and Modified CSTR/ UASB designs would be supported. Any new design worthy to fit in the Scheme would be considered by the MNRE but after duly assessing the technological breakthroughs at indigenous or international level. The eligible item associated with a biogas plant includes:

- Digester, gas holder and accessories
- Feed / slurry handling system (composting systems / Slurry value addition systems)
- Use of water supply and storage of Biogas
- Long period availability of plant specific feedstocks
- Gas outlet and Gas pipeline network
- Biogas Storage and Transportation arrangement for localized sell of surplus biogas
- Arrangements for sell of surplus biogas power.

3. Gas Cleaning System:

The raw biogas(biomethane) as obtained from the biogas plants comprises of Methane (CH₄) as the main component (50-70 percent), and Carbon Dioxide (CO₂) (30-40 percent) with varying quantity of Hydrogen Sulfide (H₂S) , moisture and some other gases in trace quantities. The composition varies depending upon the substrate used. Therefore, the raw biogas is processed and purified from the unwanted and harmful gases to the biogas engines like Hydrogen Sulfide, Carbon Dioxide and moisture upto certain limits. Concentration of hydrogen disulfide in excess of 0.1 % is harmful to the engine. Hence it is necessary to remove Hydrogen Sulfide before the gas is taken to the engines by putting with H₂S and CO₂ Scrubber.

4. Engine with alternator

- 100% biogas engines
- Micro-turbines

5. Control / Monitoring Panel

BIS Standard control / monitoring panel would be supported.

6. Machine Room / Shed

A proper machine room with shed would be planned as per standard practices. The biogas generated in the digester, if necessary can be stored in a suitable storage unit or membrane type storage balloon.

7. Manure management system /protocol

Manure management is an integral part of a biogas based power generation system for arriving at an economically feasible operation level. Marketing strategy of the biogas slurry or the value added bio-manure is required to be maintained by the biogas plant users/ biogas plant operators at the behest of the owners and meet the standard specifications of Fertilizer Control Order 1985 to be called as a perfect Organic Bio-manure under the FCO 1985.

8. Any new efficient biogas plant for higher rate of production of biogas, cleaning of the raw biogas to pure biogas and conversion of the biogas to electricity, effective thermal utilization by biogas stoves having thermal efficiency of more than 55 % and also dual appliance i.e .LPG Stove equivalent Biogas Stove in terms of ease and design and thermal efficiency etc. can also be used subject to its verification and substantiation of performance parameter after approval of the Ministry. For use of biogas in cooking in kitchens, the ISI marked Standard biogas stoves as mentioned at para 6.1 of the Guidelines should be provided.

9. Fixed dome design / Deenbandhu and other approved models of biogas plant up to capacity of 120 cubic meter per day or in modular units of the same may also be propagated as per design dimensions and standards for the same developed at BDTC, PAU, Ludhiana, Punjab and medium and large capacity approved models of Biogas plants for digestion of cattle dung and other suitable biomass. Approval of MNRE may be sought for any new model of Biogas plant before submission of project proposal(s) under these guidelines.

ANNEXURE-II A

Pattern of Central Financial Assistance (CFA) & rates applicable under the Biogas Power Generation (Off-grid) and Thermal application Programme (BPGTP) w.e.f. 26-11-2018 and up to 2019-20 (31.03.2020) for SCs, STs, and all Category Beneficiaries of NER States, including other charges are given as below-

Power generating capacity (kW)	Biogas plant capacity (cubic metre)	Requirement of DPR	CFA/subsidy limited to the following ceiling or 40% of the Project cost whichever is less.		Administrative Charges to Program Implementing Agencies, State Nodal Departments /Agencies/ BDTCs for providing technical supervision, submission of project completion and commissioning reports of Project and monitoring of the projects.	
			Power Generation	Thermal applications	Power Generation	Thermal applications
3-20kW	30 M ³ to 200 M ³	DPR required above 10 kW (above 100 m ³ biogas plant size)	Rs.40,000/- (Rupees forty thousand only) per kWeq	Rs.20,000/- (Rupees Twenty thousand only) per kWeq thermal/cooling	10% of the CFA	5% of the CFA
>20kW up to 100kW	Biogas plants of above 200 cu. metre size or any combination of above size plants or approved alternate matching capacity/design	DPR required	Rs.35,000/- (Rupees Thirty five thousand only) per kW	Rs.17,500/- (Rupees Seventeen thousand five hundred only) per kWeq thermal/cooling	Rs. 2,00,000/- (fixed)	Rs. 1,00,000/- (fixed)
>100 kW up to 250 kW	1000 cubic metre biogas plant of single digester or any combination of above sizes approved plants capacity/ design	DPR required	Rs.30,000/- (Rupees Thirty thousand only) per kW	Rs.15,000/- (Rupees Fifteen thousand only) per kWeq/cooling	Rs. 3,00,000/- (fixed)	Rs.1,50,000/- (fixed)

ANNEXURE-II B

Pattern of Central Financial Assistance (CFA) & rates applicable under the Biogas Power Generation (Off-grid) and Thermal application Programme (BPGTP) w.e.f. 26-11-2018 to 2019-20 (31.03.2020) for All Other States (except SC/ST category beneficiaries of all States/ UTs & NER States) including other charges are given as below-

Power generating capacity (kW)	Biogas plant capacity (in cubic metre)	Requirement of DPR.	CFA/subsidy limited to the following ceiling or 35% of the Project cost whichever is less.		Administrative Charges to Program Implementing Agencies, State Nodal Departments / Agencies/BDTCs for providing technical supervision, submission of project completion and commissioning reports of project and monitoring of the Project performance.	
			Power Generation	Thermal applications	Power Generation	Thermal Applications
3-20 kW	30 M ³ to 200 M ³	DPR required above 10 kW (100 m ³ biogas plant size)	Rs.35,000/- (Rupees Thirty five thousand only)per kW	Rs.17,500/- (Rupees Seventeen thousand five hundred only) per kWeq thermal/ cooling	10% of the CFA	5% of the CFA
>20kW up to 100kW	Biogas plants of above 200 cu. metre size or any combination of above plants or approved alternate matching capacity/design	DPR required	Rs.30,000/- (Rupees Thirty thousand only) per kW	Rs.15,000/- (Rupees Fifteen thousand only) per kWeq thermal/ cooling	Rs 2,00,000/- (fixed)	Rs. 1,00,000/- (fixed)
>100kW up to 250 kW	1000 cu. metre biogas plant of single digester or combination of above plants or approved alternate matching capacity/design	DPR required	Rs.25,000/- (Rupees Twenty five thousand only) per kW	Rs.12,500/- (Rupees twelve thousand five hundred only) per kWeq thermal/ cooling	Rs.3,00,000/- (fixed)	Rs.1,50,000/- (fixed)

ANNEXURE III -A

FORMAT FOR BASIC INFORMATION FOR PROJECTS UPTO 10 KW ON BIOGAS based POWER GENERATION (OFF-GRID) & THERMAL APPLICATION PROGRAMME (BPGTP)

1	Name and address of state Govt. Nodal Deptt. / Nodal Agency / BDTC/ KVIC Or other Approved Organization	
2	Name & Address of project executing organization/agency (if other than SNA/SND./BDTC/ KVIC)	
3	Details of Site indicating location and address with expected load and use of electricity or biogas for thermal applications:	
4	Capacity of the biogas plant (cubic meter per day or cubic meter per hour)	
5.	Details of Cattle viz. in numbers-Adult, smaller than 5 years (Total availability of dung in kg.) plus Any other source of waste like goats, pigs, poultry dairy effluent , food & kitchen , Agro/ Food processing waste etc. (Please specify the Nos. of animals/ birds & its dropping in kg.) to the accuracy so as to work out total quantity of waste in Kgs. / Tonnes/ Litres of dairy effluent etc.	
5	Name of manufacturer/supplier and cost of 100% biogas engines, DG-Genset and associated control panel etc.	
6	Total daily demand /requirement of power in KWh/day and required amount of biogas generation daily (in cubic metre) for the same including for cooking/ heating / cooling etc. (Kcal requirement per day for thermal energy applications).	
7	No. of biogas plants Units with capacity of each in m ³ proposed	
8	Proposed operational hours per day entirely based on Biogas i.e . on 100% biogas utilization basis.	
9	Estimated actual cost as worked out by the concerned user agency / manufacturer and verified by the concerned SND / SNA / KVIC / BDTC etc.	
10	Total Estimated cost of the project (in Rs.)	
11	Amount of Central Financial Assistance (CFA) worked out as per the approved rates and norms of the scheme of BPGTP (in Rs.) And Category of the beneficiary General/ SC/ ST / Others.	

12. Further this is certified that:

(i)Adequate quantity of surplus cattle dung/biomass/ other eligible wastes are available at the proposed plant site and user/applicant is genuinely interested for installation and operation of biogas power plant/ thermal plant on regular basis at least for 15 years period.

(ii)The User Organization has agreed and tied up to arrange balance funds from Bank and self-contribution over & above the eligible CFA for installation of proposed biogas based power /thermal project.

(iii) User organization has agreed to operate and maintain the biogas project on their own or by engaging the skilled personnel as Biogas Plant Operator on regular basis for a minimum period of 12- 15 years.

(iv)The user organization has the capacity to operate the plant for12- 15 years and has tied up management of plant slurry and its disposal by making self-use/ sale of organic bio-manure to third party.

Name & Signature of the User Organization/user

Date:

Place:

(Verified & Countersigned by Head of SND/SNA/BDTC and Other Recognized PIA)

ANNEXURE III- B

FORMAT FOR BASIC INFORMATION FOR PROJECTS ABOVE 10 KW BIOGAS BASED POWER GENERATION / THERMAL APPLICATIONS PROGRAMME (BPGTP):

S.No	Name of the Project	Biogas based power generation/ Thermal application
1.	Name of the Beneficiary and address	
2.	Geographical details of the proposed site	
	A) Name of the village	
	B) Post	
	C) Block	
	D) Taluk	
	E) District	
	F) Pin code Number	
	G) State	
	H) Nearest bus stand /Railway station	
	I) Name of the contact person	
	J) Telephone /Mobile Nos of contact person	
	K) Telephone No. of the site	
3.	Name of address of the State Agency/BDTC who propose to undertake the work	
4.	Category of Beneficiary / Institution Please (√) tick	a) General/SC/ST/Others b) Private c) Government d) Public Organization e) Others
5.	Proposed use of generated power with detailed configuration	
6.	Mode of use and total requirement of power in kWh/day OR total requirements of biogas in cu.m.per day	
7.	Proposed size of Biogas plant in cubic meter (m ³)	
8.	Available population of cattle	
9.	a) Details of Cattle viz. in numbers-Adult, smaller than 5 years (Total availability of dung in kg.)	
	b) Any other source of waste like goats, pigs, poultry dairy effluent, food & kitchen, Agro/ Food processing waste etc. (Please specify the Nos. of animals/ birds & its dropping in kg.) to the accuracy.	
	c) Agricultural waste in kg.	
	d) Other degradable biomass in kg.	

	(please attach separate sheet along with the full details of each raw material)	
	e) No. of latrine attached & No. of users	
	f) Availability of land for proposed biogas plant and housing generator etc.	
10.	Procurement and commissioning of (<i>Name of the proposed power generating system, Mechanism for manufacturers and operation & Maintenance of the system suppliers to be given</i>)	
11.	Estimated quantum of power to be generated through biogas plant, keeping in view the minimum 10 hours daily operation of the proposed power plant entirely based on Biogas generation	
12.	Proposed Electrical Load Distribution with Biogas power plant	
	a) Domestic (Details to be given)	
	b) Village industry (Details to be given)	
	c) Irrigation/Agriculture (Details to be given)	
	d) Entire Power to be used for self & / Balance surplus power /biogas to be sold locally or to be fed into Grid OR entire Power Generated to be sold through grid connection route.	
13.	Types of engine proposed for power generation	
14.	Capacity of engine / dual fuel (used with bio fuel only) or Biogas micro turbines etc. in kVA	
15.	a) Cost of 100% biogas engine or dual fuel engine, coupled with Genset, associated Central panel and power room etc. (in Rs)	
	b) Cost of internal transmission system used for electrification (for a & b please attach separate sheet along with full details)	
16.	Cost of proposed biogas plant (in Rs):	
17.	Manure Management and Handling system including safe and neat disposal for sale of Bio-manure.	
18.	Approximate cost of electricity that may be generated through Biogas (kWh/ day)	
19.	Source of funding of the project (in Rs)	
	a) Own fund (Rs.)	
	b) Bank loan (Rs.)	
	c) Central financial assistance (Rs.)	
	d) Total (in Rs.)	
20.	Source of funds for meeting operation and maintenance cost of the system	

21.	Undertaking from State Nodal Deptt.../Agencies/BDTC <i>(An undertaking to this effect from agency for procurement installation, operation and maintenance of the system on regular basis.)</i>	
22.	Mechanism to transfer the power plant to user / panchayat/ Society/ Entrepreneur etc. by SNA/SND/BDTC after specific period if applicable for the project proposal.	
23.	Any other information with regard to the project	

Date

**Signature of the Beneficiary
who undertakes the project**

Place

Date

**Signature of the agency who
promote/ Undertake the work of
power generation & construction
of Biogas plant etc.**

**Verified & countersigned by the Head of the
concerned PIA/SND / SNA / KVIC / BDTC/NDDB**

On Rs. 50 Stamp paper

UNDERTAKING

The management of <*beneficiary name*> has submitted proposal for setting up of _____ kWe power generation/ _____ Cubic Metre capacity biogas generation project using feed stock <*type of raw material*> as feed material for seeking Central Financial Assistance (CFA) from Ministry of New and Renewable Energy, Government of India.

I/We undertake that,

1. The cost over and above the MNRE, GOI share will be borne by me/ our organization.
2. I/We will operate the plant for a minimum period of 15 years and shall not dislocate or abandon the project including any of the related equipment/ part. If at any point of time the biogas project is found non-operational after its commissioning, I / we shall be liable to refund the Central Financial Assistance / subsidy received for the project installation, with interest thereon as decided and asked by the MNRE, Government of India.

Deponent

Attested as identified
(dated)
Notary Public

Authorized signatory of the industry/Organization/Beneficiary

On Rs. 50 Stamp paper

AFFIDAVIT-I

I, < **Beneficiary name and full address** > do hereby declare solemnly declare and affirm as under:

1. That the company of <beneficiary name> has applied for setting up of biogas based power generation project/ thermal energy applications at <site address> under the scheme of Biogas Power Generation (Off-grid) Thermal Application Programme (BPGTP) to MNRE, Government of India, New Delhi through <implementing agency name>.
2. That the company has sufficient funds/materials at present and same will be available to run the plant on sustainable basis for a minimum period of 15 years.

Deponent

Verification:

Verified that the content of this affidavit are true and correct to the best of my knowledge and belief nothing has been concealed therein.

Attested as identified

Deponent

(Dated)

Notary Public

Authorized signatory of the industry

AFFIDAVIT-II

I/We _____, do hereby solemnly declare and affirm as under.

1. That biogas power project has been installed at **Village:** _____, **Taluka/ Mandal/ Block;** _____, **District,** _____ **State:** _____ for _____ **KW** sanctioned capacity using cowdung, Tapioca fruit, poultry waste, organic waste and other biomass as feed material. The installed biogas power/ thermal plant have the configuration of all required standard equipment and components as per MNRE- Govt. of India, Scheme norms.
2. I/We / the Company----- have not claimed any subsidy for the above site installed project under any other programmes of Govt. of India. If there is any discrepancy found subsequently, the ministry is allowed to recover the subsidy under Biogas Power/ Thermal Energy projects from us.
3. We/ I will operate the above said biogas plant at about 70 % of the rated capacity daily for 10 hrs. per day and attend operation and maintenance of the project for 15 years after its commissioning and shall not dislocate/ Dismantle the same whatsoever and without the prior permission of the Ministry of New and Renewable Energy, Government of India.
4. The BDTC/MNRE / State Nodal Agency etc. will have the right to get all the project related data to publish success stories/ case studies / technical papers and for third party inspection and evaluation on the operation and performance aspects of the project.
5. Above content of this affidavit are true and correct to the best of my knowledge and acceptable to the undersigned.

Date:

Authorized Signature of the beneficiary

Verification:

Verified that the content of this Affidavit are true and correct to the best of my knowledge and belief nothing has been concealed there in.

ATTESTED AND IDENTIFIED DEPONENT

Dated. _____

NOTARY PUBLIC

ANNEXURE – IV

Details of Three (3) Months Performance Report of Biogas Power / Thermal energy Project under Biogas Power Generation (Off-grid/Grid) and Thermal energy Application Programme of MNRE.

- (i) Sanctioned Capacity of the Project:KW.....m³.
 (ii) Installed capacity of the Generator:KW.....m³.

Name & Address of the beneficiary organization & Project Site:									
Sl. No.	Date (dd/mm/yyyy)	Daily feedstock feeding & biogas generation		Operation of Genset -----KW & electricity units produced perday recorded from Energy meter reading (kWhs/day)			Plant operating hours		Total daily plant operational hours.
		Tons/day	Biogas produced (Cubic Metre/Day)	Previous Reading	Current Reading	Total energy units generated/day (KWhrs)	Morning Hours (from-- to-----)	Evening Hours (From -- ----to----	
1									
2									
3									
4									
5									
6									
7									
8									
Upto 100 days									

1. Signature of the Beneficiary/ User Organization
2. Signatures of Plant Developer
3. Signatures with official seal of the authorized Officer of Programme Implementing Agency
4. Counter Signatures of the Head of the Programme Implementing Agency With Official Seal.

Date:
Place:

72 Hours, 8 DAYS PERFORMANCE REPORT

72 Hours Performance Report for 8 consecutive days operation of the plant at 80% of the rated capacity of Biogas Power Generation/ Thermal energy Project under Biogas Power Generation (Off-grid/Grid) and Thermal energy Application Programme of MNRE.

- (i) Sanctioned Capacity of the Project:KW.....m³.
 (ii) Installed capacity of the Generator:KW.....m³.
 (iii) Rated capacity of the power/ Biogas Generator: KW/KVA Or

Cu. Metre per day.

Name & Address of the beneficiary organization & Project Site:									
Sl. No.	Date (dd/mm/yyyy)	Daily feedstock feeding & biogas generation		Operation of Genset -----KW & electricity units produced perday recorded from Energy meter reading (kWhs/day)			Plant operating hours		
		Tons/day	Biogas produced (Cubic Metre/ Day)	Previous Reading	Current Reading	Total energy units generated/ day (K Whrs)	Morning Hours (from --- to----)	Evening Hours (From ---- --to---)	Total daily plant operational hours.
1									
2									
3									
4									
5									
6									
7									
8									

1. Signature of the Beneficiary/ User Organization
2. Signatures of Plant Developer
3. Signatures with official seal of the authorized Officer of Programme Implementing Agency
4. Counter Signatures of the Head of the Programme Implementing Agency With Official Seal.

Date:

Place:

JOINT COMMISSIONING CERTIFICATE OF BIOGAS POWER /THERMAL ENERGY PROJECT

(On Letter Head of the designated Programme Implementing Agency)

Date: _____

Reference: MNRE Administrative Sanction No. ----- Dated: -----

It is certified that a Biogas Power Generation (Off-grid/ Grid)/ Thermal Energy application plant of ---
---KW (KVA) / -----Cubic metre Capacity per day has been installed at the premises of Shri/ Smt.
(Name of the Beneficiary) _____,at Village, Mandal/
Taluka -----,District :----- State: -- --under the technical guidance, implementation supervision and
monitoring of the designated Programme agency “ XYZ ”. We do hereby solemnly declare and
affirm as under:-

That the BIOGAS Developer/ Company / Farmer of **(Name of the Developer)** has supplied ,
constructed and commissioned the project as per the sanction and Guidelines of the MNRE ,
Government of India and has started stabilized functioning from the Date(dd/mm/yyyy) which is
the declared commissioning date of this project. Thus the installed Biogas Power Project (Off-Grid)
has been commissioned on Date **(dd/mm/yyyy)**and thereafter it is being operated continuously for
consecutive 30 days as per MNRE norms and working satisfactorily for measuring and recording the
required performance output data. We will ensure to operate and maintain the plant on sustainable basis
for a minimum of 15 years.

1. Beneficiary Signature

(Name of the Beneficiary) _____

2. Biogas Developer

**3. Authorized Signature of the concerned Officer of the Nodal agency / Programme
Implementing Agency with Official Seal.**

**4. Counter Signatures of the Head of the Programme Implementing Agency With
Officers Official Seal.**

Date:

Place:

(Programme Implementing Agency)

JOINT PROJECT INSPECTION REPORT AFTER COMPLETION & COMMISSIONING OF THE PROJECT (TECHNICAL & INSPECTION REPORT)**BIOGAS POWER PROJECT (OFF-GRID) – _____ State****Name of the State Nodal Agency / BDTC _____****Sanction No. _____****General Information**

1.	Name and Address of the beneficiary	
2.	Date of commissioning	
3.	Size of the plant/Model	
4.	Capacity of the Genset	
5.	Total Cost of the project	
6.	CFA as per MNRE sanction	

Technical Specification:**PART – A**

1.	Genset Capacity Details	
	Engine make /Alternator model	
	Capacity of the generator	
2.	Cooling Arrangement	
3.	No. of Cylinders and Alignment	
4.	Out put	
5.	Governing – Electronic	
6.	Engine control panel	
	a. Energy meter	
	b. Change over switch	
	c. Engine Earthing	
	d. Canopy	

Biogas Flow Meter	
Biogas flow meter	
Biogas flow meter Manufacturer	
Scrubber	
Scrubber	
Scrubber manufacturer	

Energy Meter Technical Specification	

Remarks and Recommendation:

Biogas Power Project (Off-Grid) installed by **(Name of the Beneficiary)** _____ is working satisfactorily. MNRE Govt. of India has sanctioned Central Finance Assistance of Rs. _____ lakhs. The project is working satisfactory in terms of the required and desired outputs parameters as recorded during the first 100 days period post commissioning and now the third party may also inspect the same. Hence, it is recommended to release CFA from MNRE – Govt. of India.

Signature of the Beneficiary

Authorized Signature of the nodal agency

THIRD PARTY INSPECTION
INSPECTION REPORT AS PER MNRE – GOVT. OF INDIA FORMAT
BIOGAS POWER PROJECT (OFF-GRID) – _____ State
Name of the State Nodal Agency / BDTC _____
Sanction No. _____

General Information

1.	Name and Address of the beneficiary	
2.	Date of commissioning	
3.	Size of the plant/Model	
4.	Capacity of the Genset	
5.	Total Cost of the project	
6.	CFA as per MNRE sanction	

Technical Specification

1.	Genset Capacity Details	
	Engine make	
	Capacity of the generator	
2.	Cooling Arrangement	
3.	No. of Cylinders and Alignment	
4.	Out put	
5.	Governing – Electronic	
6.	Engine control panel	
	a. Energy meter reading	
	b. Change over switch provided	Yes/No
	c. Engine Earthing	
	d. Canopy	
7.	Biogas flow meter Provided/Reading	
8.	Biogas Scrubbing/ Cleaning System	Working/Not Working
9.	Average No. of electrical units generated /day	
10.	No. of hours engine runs /day	
11.	Daily Usage of electricity	

Remarks and Recommendation:

Biogas Power Project (Off-Grid) installed by _____ is working satisfactorily / not satisfactorily. MNRE Govt. of India has sanctioned Central Financial Assistance of Rs. _____. Hence, it is recommended to release CFA from MNRE – Govt. of India.

(Audited Statement of Expenditure (ASoE) by CA Firm on CA Letterhead with Firm Registration Number and Membership Number.) _____

CERTIFICATE

This is to certify that according to the Statement of Expenditure produced and information furnished by _____ (Beneficiary name and address) have incurred the following project expenditure regarding to **Biogas Power Generation (Off-Grid) and Thermal application Project** installed at _____ (site location) and commissioned on dd/mm/Year w.r.t. MNRE Administrative Sanction No. ___ dated ___ for Rs. _____.

Sl No	Component	Cost in Rs.
1	Construction of Biogas plant	
2	Generator, Engine with alternator	
3	Biogas Scrubbing System	
4	Control Panel, energy meter and flow meter and pipeline	
5	Machine Room /Shed	
6	Manure management System	
7	Any other	
8	Others	

Total cost of installation/commissioning (Rupees _____ only)

Signature of the CA with seal

Signature of the beneficiary

Signature of the beneficiary

Authorized Signature of the
Programme Implementing Agency

Authorized Signature of the Head
of the PIA/State
