

No. 300/2/2020-Waste To Energy
Government of India
Ministry of New and Renewable Energy
(Waste to Energy 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 & Renewable Energy
New Delhi-110003

Subject: Administrative approval for implementation of Waste to Energy Programme under the Umbrella scheme of National Bioenergy Programme for duration of FY 2021-22 to 2025-26 (Phase-I)- Reg.

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. Guidelines for the Waste to Energy Programme are enclosed as **Appendix**.
 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 31st March 2021.
 4. Budget outlay of sub-schemes of the National Bioenergy Programme is given as below:

Arun Kumar

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

5. Municipal Solid Waste (MSW)/Refused Derived Fuel (RDF) to power projects based thermal technologies (Incineration, Gasification, Pyrolysis etc.) are not supported under the Waste to Energy Programme.

6. 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).

7. In addition to regular applications for seeking CFA under the Programme, following points are emphasized:

i. 'In-principle' approval for grant of Central Financial Assistance (CFA) to eligible proposals, except for the proposals covered under paragraph -5 above, which were received up to 31.03.2021 but 'In-principle' approvals could not be accorded thereafter as the National Bioenergy Programme was continued only for clearing committed liabilities may be considered under this administrative approval. 'In-principle' approvals and subsequent release of CFA to such proposals shall be governed by the relevant Waste to Energy Programme guidelines prevailing at the time of the receipt of the concerned proposals.

ii. (a) 'In-principle' approval for grant of CFA to eligible project proposals submitted to the Ministry after 31.03.2021 and till the issuance of new guidelines of Waste to Energy Programme will also be considered under this administrative approval.

(b) Further, the applications of projects commissioned during this period (after 31.03.2021 and till the issuance of till the issuance of new guidelines of Waste to Energy Programme) may also be considered under this administrative approval for according 'In-principle' approval for CFA. Applications of such projects should be submitted within three months of date of notification of the guidelines.

8. The expenditure on Waste to Energy Programme will be met from the budget provisions given under Bio-Power Head.

9. Indian Renewable Energy Development Agency Limited (IREDA) shall be the implementing agency for implementation of the Waste to Energy Programme.

Aneen Kumar

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

Yours faithfully,

Aseem Kumar

(Aseem Kumar)

Director

Copy for information and necessary action to:

- 1) All Central Government Ministries and Departments.
- 2) NITI Aayog, Sansad Marg Area, New Delhi.
- 3) Renewable Energy/Power/Energy Departments of all States & UTs.
- 4) Principal Director of Audit, Scientific Audit-II, DGACR Building, I.P. Estate, Delhi-110002
- 5) Indian Renewable Energy Development Agency Limited (IREDA), 3rd Floor, August Kranti Bhawan, Bhikaji Cama Place, New Delhi-110066
- 6) State Nodal Agencies for Renewable Energy (SNAs) of all States/UTs.
- 7) Sardar Swaran Singh National Institute of Renewable Energy (SSS-NIBE), Kapurthala, Punjab.
- 8) Heads of all Biogas Development and Training Center (BDTC).
- 9) Heads of Banks/Financial Institutions.

Internal Distribution:

- a. PS to Hon'ble Minister of Power and New and Renewable Energy
- b. PS to Hon'ble Minister of State for New and Renewable Energy and Chemicals & Fertilizers
- c. PSO to Secretary, MNRE
- d. All Group Heads and Advisors/JS (DDJ)/JS(LB)/JS&FA/Eco. Advisor, MNRE
- e. CCA, MNRE/ Cash Section, MNRE
- f. Director (NIC) to upload the Guidelines on Ministry's Website.
- g. Sanction folder

Aseem Kumar

(Aseem Kumar)

Director

Guidelines for implementation of

Waste to Energy Programme

“Programme on Energy from Urban, Industrial and Agricultural Wastes/Residues”



Government of India

Ministry of New and Renewable Energy

New Delhi – 110003

November - 2022

1. INTRODUCTION

1.1. Name of the Programme: "Programme on Energy from Urban, Industrial and Agricultural Wastes/Residues". It may also be referred as "Waste to Energy Programme".

1.2. Objective: The objective of the programme is to support the setting up of Waste to Energy projects for generation of Biogas/ BioCNG/ Power/ producer or syngas from urban, industrial and agricultural wastes/residues.

1.3. Scope: The programme provides Central Financial Assistance (CFA) to project developers and service charges to implementing/inspection agencies in respect of successful commissioning of Waste to Energy plants for generation of Biogas, Bio-CNG/enriched Biogas/Compressed Biogas, Power/ generation of producer or syngas.

2. FUNDING PATTERN

2.1. Standard CFA pattern: Standard pattern of CFA for grant of 'In-principal Approval' to Waste to Energy projects under the programme is as follows:

S.No.	Type of project	Standard CFA rate @ installed capacity of the plant
1	Biogas	Rs 0.25 Cr per 12000cum/day (maximum CFA of Rs. 5.0 Cr/project)
2	BioCNG / Enriched Biogas/ Compressed Bio Gas	-Rs 4.0 Cr per 4800 kg/day (for BioCNG generation from new biogas plant) -Rs 3.0 Cr per 4800 kg/day (for BioCNG generation from existing Biogas plant#) -Maximum CFA of Rs. 10.0 Cr/project for both cases.
3	Power (based on Biogas)	-Rs 0.75 Cr/MW (for power generation from new biogas plant) -Rs 0.5 Cr /MW (for power generation from existing Biogas plant#) -Maximum CFA of Rs. 5.0 Cr/project for both cases.
4	Power based on bio & agro-industrial waste (other than MSW through incineration process).	Rs 0.4 Cr/MW (maximum CFA of Rs. 5.0 Cr/project)
5	Biomass Gasifier for electricity/thermal applications	<ul style="list-style-type: none"> o Rs. 2,500 per kW_e with dual fuel engines for electrical application o Rs. 15,000 per kW_e with 100% gas engines for electrical application o Rs. 2 lakh per 300 kW_{th} for thermal applications.

#Note: In case Developer is setting up a new BioCNG/ Power plant based on Biogas already available or generated from already commissioned/operational/existing biogas plant or have already availed financial assistance from Government of India for Biogas plant, then CFA will be provided only for conversion of biogas to BioCNG (@Rs 3.0 Cr per 4800 kg/day) or biogas to power (Rs 0.5 Cr /MW), as mentioned in the [table](#) above.

2.2. Special CFA pattern

i) Special Category States: In case the Waste to Energy plants are set up in Special Category States (NE Region, Sikkim, Himachal Pradesh and Uttarakhand), Jammu & Kashmir, Ladakh, Lakshadweep and Andaman & Nicobar Islands, the eligible CFA would be 20% higher than Standard CFA pattern given in [para 2.1](#) above.

ii) Biomethanation plants set up in registered Gaushala/Shelter: Biogas/BioCNG/Power (biogas based) generation plants based on cattle dung as main feedstock set up by Gaushalas independently or through joint ventures/partnerships will be eligible for 20% higher CFA than Standard CFA pattern given in [para 2.1](#) above. These Gaushalas (Shelters) should be registered with the respective State Government.

2.3. Service Charge to Implementing Agency and Inspection Agency

i) Implementing agency (IA) shall be provided a service charge @1% of total CFA (minimum of Rs 50,000/-) for receiving and processing the applications. Indian Renewable Energy Development Agency Limited (IREDA) shall be the implementing agency. However the Ministry of New and Renewable Energy (MNRE) may change the IA by way of a suitable notification.

ii) Inspection Agency would be provided service charge @ Rs 1% of the eligible CFA (minimum of Rs 50,000/-) towards monitoring of implementation progress, performance inspection and verification of generation record, and post installation monitoring of the plants.

3. TERMS & CONDITIONS

i) Developers shall share plant generation data with MNRE or any other agency designated by MNRE, except in the case of Biomass Gasifiers, through installation of SCADA System/remote monitoring system. (This is applicable for project proposals submitted after notification of this guideline).

ii) Expansion of Plants: Grant of CFA to plants which intend to add capacity to the existing plants shall also be considered. CFA for such plants will be considered only for the enhanced capacity by way of installation of new plant and machinery. Applications received for

expansion projects will be processed as per guidelines existing at the time of submission of the application for expansion.

iii) Central financial assistance from any other Central Govt. Ministry should not be claimed for proposed plant for which application has been submitted to this Ministry.

iv) Waste to Energy (WtE) plants based on waste heat, waste plastics, waste tires or such other polymer waste shall not be eligible for CFA.

v) Biogas plants of size upto 250 kW capacity for power generation and upto 2500 m³/day for Biogas generation capacity are covered under Biogas Programme and shall not be eligible under this programme.

vi) Plants installed with new equipment/machinery only shall be eligible for CFA under this programme.

vii) Municipal Solid Waste (MSW)/Refused Derived Fuel (RDF) to power projects based thermal technologies (Incineration, Gasification, Pyrolysis etc.) are not supported under the Waste to Energy programme.

4. PROCEDURE FOR AVAILING CFA

4.1. Submission of proposal:

i) The proposal for grant of "In-Principle" approval of CFA will be accepted through BioURJA Portal (<https://biourja.mnre.gov.in>) before commissioning of the proposed plant [except for the projects mentioned in clause 4.1 (iii)]. **The last date for submitting the applications under these guidelines shall be 31.12.2025.** List of documents to be submitted is placed at [Annexure-I \(Stage-I\)](#).

ii) **Proposals submitted to the Ministry on or before 31.03.2021 under Waste to Energy Programme (notified vide letter no. 22/222/2016-17-WTE dated 30.07.2018 & 28.02.2020) but 'In-principle' approvals could not be accorded thereafter as the programme was continued only for clearing committed liabilities:** 'In-principle' approvals and subsequent release of CFA to such proposals, except Municipal Solid Waste (MSW)/Refused Derived Fuel (RDF) to power projects based thermal technologies, shall be governed by the relevant guidelines prevailing at the time of the receipt of the concerned proposals.

iii) **Proposals received in the Ministry from 01.04.2021 till the issuance of these guidelines for Waste to Energy Programme:** Eligible proposals falling under this category shall be governed by these guidelines. Waste to Energy projects which have been commissioned during

aforementioned period, shall also be considered as eligible for grant of CFA under this programme. The applications of such projects should be submitted within three months of date of notification of these guidelines.

iv) Incomplete proposal in any form and without requisite approvals/documents will be rejected. The rejection of the proposal will be intimated preferably within 60 days of submission of the proposal in the BioURJA Portal. However, fresh proposal doing away with all shortcomings may be resubmitted before commissioning of the plant or 31.12.2025 whichever is earlier.

4.2. "IN-PRINCIPLE" APPROVAL:

i) **For projects with debt/loans from FIs/Banks:** In case loan drawn by the developer of Waste to Energy plant is equal or more than from eligible CFA, the Implementation Agency shall receive the applications through BioURJA portal, examine the applications and shall forward the consolidated proposal to Ministry on bimonthly basis. The Ministry shall issue an "In-Principle" approval with the concurrence of IFD and approval of Secretary, MNRE. For projects with loan, Ministry/ implementing agency will go by the appraisal of the project by the lending bank/FI.

ii) **For projects without debt/loan or projects wherein loan drawn by the developer of Waste to Energy plant is less than the eligible CFA,** the Implementation Agency shall receive the applications through BioURJA portal, examine the applications and thereafter the applications will be put up to Project Appraisal Committee (PAC). Only PAC recommended applications will be forwarded to Ministry in a consolidated manner on bimonthly basis. The Ministry shall issue an "In-Principle" approval with the concurrence of IFD and approval of Secretary, MNRE.

iii) The "In-Principle" approval will preferably be accorded to the proposals forwarded by IREDA preferably within 40 days of forwarding the proposal to Ministry.

4.3. Commissioning of the plant:

i) The time period for commissioning is 24 months for WTE plants and 12 months for Biomass Gasifiers from the date of "In-Principle" approval.

ii) After submission of application in the BioURJA portal, if developers intend to commission the plant before "In-Principle" approval of CFA is accorded, prior intimation of commissioning the plant to IA is mandatory. However, accord of "In-Principle" approval for grant of CFA shall be subject to fulfillment of the eligibility conditions as mentioned in these guidelines.

iii) In case of delay for reasons not attributable to the developer, a suitable extension of time over the original period of commissioning may be granted by Secretary, MNRE provided an application is made by the developer, with supporting documents, 30 days before the

original date of commissioning. If no such application is received by Implementing Agency and commissioning does not happen within the stipulated period (including the extended period), the “In-Principle” approval of CFA shall be treated as cancelled and no CFA shall be released.

4.4. Plant performance:

i) Inspection team will visit the plant for performance inspection based on request from the developer. The performance inspection of the plant will have to be carried out within 18 months from the date of commissioning beyond which “In-Principle” approval will be cancelled except in those cases where reason(s) of delay in inspection is (are) beyond the control of Developer. For such cases, an extension of suitable period over the original performance inspection period can be granted by Secretary, MNRE provided an application is made by the developer, with supporting documents, before the completion of original inspection period of 18 months as given above.

ii) The developer may choose any one of the following agencies for inspection of the plant:-
 (a) Concerned State Nodal Agencies for Renewable Energy (SNAs); **or**
 (b) Sardar Swaran Singh National Institute of Bio-Energy (SSS-NIBE); **or**
 (c) Biogas Technology Development Centre (BTDC) (*List at [Annexure-VIII](#)*).

iii) Performance testing of the plant would inter-alia imply the following:-

a) Waste to Energy Plants: The condition of successful commissioning of the Waste to Energy plants would imply operation of the plants for atleast 3 consecutive months, including continuous operation for at least 72 hours at an average of 80% of the rated capacity of the plant.

In case of biomethanation plants (Biogas, BioCNG, Power based on biogas), continuous operation of the plant implies continuous operation of digester (raw biogas generation) for 72 hours.

Based on the performance of the project for at least three consecutive months, following graded structure for release of CFA based on average PLF over a period of atleast three months shall be applicable: -

Average PLF achieved during minimum 3 consecutive months	% of eligible CFA
≥80%	100%
≥ 60% and < 80%	80%
≥ 50% and < 60%	60%
<50%	0%

b) Biomass Gasifiers: The condition of successful commissioning for Biomass gasifier would imply operation of the Gasifier for atleast 3 consecutive months, including continuous operation for at least 3 consecutive days at an average PLF of 60% of rated capacity (taking 12 Hrs per day as standard operating hours).

In case of Biomass Gasifier, data of consumption/saving of conventional fuel can also be accepted for release of CFA.

4.5. Submission of documents for release of CFA:

i) Claim for release of CFA by developer should be made in the BioURJA portal within 3 months of the inspection of the plant by Inspection Team. List of documents to be submitted is placed at [Annexure-I \(Stage-II\)](#).

ii) The implementing agency shall then examine the proposals for release of funds and shall forward the consolidated demand, in respect of all projects eligible for release of CFA as per scheme guidelines, to MNRE on monthly basis.

4.6. Disbursement of CFA

i) Disbursement after plant commissioning (Standard process): Applicable for all types of projects except BioCNG plants under SATAT Initiative.

a) In case of Self-financed Projects or projects wherein loan drawn by the developer of Waste to Energy plant is less than the eligible CFA, the CFA shall be disbursed to developer's bank account.

b) Bank financed: In case loan drawn by the developer of Waste to Energy plant is equal or more than from eligible CFA, CFA shall be disbursed to developer's loan account maintained in the lending FI/bank.

ii) Advance disbursement during Construction Phase: BioCNG plants which have signed BioCNG (CBG) purchase agreement with Government Oil Marketing Companies (OMCs) under SATAT Programme of Ministry of Petroleum & Natural Gas and have also availed project loan of atleast 50% of the total project cost from FI(s)/Bank(s) shall be eligible for advance disbursement of CFA during construction phase. The CFA will be released by the Ministry in two installments as below:

a) First installment of upto 50% of "In-Principle" approved CFA may be released during the construction phase to the lending FI(s)/Bank(s) subject to disbursement of at least 50% of loan amount by the FI/Bank. This may be treated as interest free loan until the release of second instalment of CFA. Documents required for availing advance disbursement of CFA during construction phase is given as below:

- 1) MNRE's "In-Principle" Approval letter.
- 2) Request letter for advance disbursement of CFA from lending Bank/FI.#
- 3) Loan disbursement letter indicating loan amount disbursed by lending bank/FI.
- 4) Furnishing of Bank Guarantee to the IA for an amount equal to the advance CFA for which the project is eligible. The bank guarantee should initially be valid for a period of four years from the date issue. Thereafter the project developer will have to extend the validity of the bank guarantee as required by the IA so as to cover the period permissible for successful performance testing, commissioning and release of CFA. The bank guarantee will be encashed if the project developer fails to adhere to the permissible timelines for successful commissioning & performance testing or submission of documents for release of CFA. The bank guarantee will be released along with the disbursement of CFA. #
- 5) Mandate form for payment transfer duly certified by FI/Bank for loan account.#
- 6) High resolution Photographs of the plant site showing progress of installation.
- 7) Consent to Establish (CTE) from State Pollution Control Board for the plant.
- 8) EIA clearance, if applicable.
- 9) Approval for storage & filling of Bio-CNG Plant from Petroleum and Explosives Safety Organization (PESO), Nagpur, if applicable.
- 10) Non-NPA certificate from the lending banks/FIs if loan availed.#
#Documents (marked with #) are also required to be submitted in original to Implementing Agency.

(b) Second instalment of balance CFA shall be released after commissioning of the plant and submission of documents as per [Annexure-I \(Stage-II\)](#). Second installment will be settled as per standard process described under clause 4.3 to 4.6(i). The amount disbursed during construction phase will be adjusted during disbursement of second installment and any surplus amount in lieu of under performance of the projects that could have been disbursed to developer shall be recovered from the Bank/FI.

(iii) The service charge to implementing agencies and inspection agencies shall be released at the time of release of CFA after commissioning and performance testing of the plant.

(iv) The above disbursements of CFA to eligible projects will be done by MNRE/Implementing Agency in accordance with procedure specified for release of funds by Ministry of Finance.

5. PROJECT MONITORING MECHANISM

Developers shall share plant generation data with MNRE or any other designated agency, except in the case of Biomass Gasifiers, through installation of SCADA System/remote monitoring system.

The aforesaid 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 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 programme, the decision of the Ministry shall be final and binding. It is clarified that mere submission of the proposal should not be construed as "In-Principle" approval of the project for grant of CFA.

ANNEXURES

Annexure-I

Stage-1

List of documents required to be uploaded on BioURJA Portal for "In-Principle" Approval:

1. **Forwarding letter#** from:
 - (i) Developer in case of self-financed projects (As governed by [clause 4.6\(i\) \(a\)](#)) **or**
 - (ii) Lead FI/Bank in case of debt financing/loans (As governed by [clause 4.6\(i\) \(b\)](#)) (Format at [Annexure-II](#)).
2. Detailed Project Report (DPR) (As per [Annexure-III](#)).
3. Loan sanction letter, if loan availed
4. Techno-economic Feasibility Report (for projects based on debt/loan as governed by [clause 4.6\(i\) \(b\)](#)).
5. Undertaking on a non-judicial stamp paper of Rs 500/- (As per [Annexure-IV](#)) **#**
6. Latest High Resolution Photographs of the proposed plant site (with timestamp)

Stage-2

List of documents required to be uploaded on BioURJA Portal for claiming release of CFA:

1. Commissioning Certificate issued by DISCOM for Grid Power projects, OMCs/ Inspection Agency for remaining projects. (As per [Annexure-V](#))
2. Plant Inspection report. (Format at [Annexure-VI](#))
3. Performance Inspection Report with 72 hours and 3 months Performance data (Format at [Annexure-VII](#))
4. Mandate form for payment transfer duly certified by FI for loan account **#**
5. Photographs of the plant with high resolution.
6. Consent to Operate (CTO) from State Pollution Control Board for the plant.
7. EIA clearance, if applicable.
8. Approval for storage & filling of Bio-CNG Plant from Petroleum and Explosives Safety Organization (PESO), Nagpur, if applicable.
9. Non-NPA certificate from the lending banks/FIs if loan availed.
10. Loan disbursement letter, if availed
11. Access details of SCADA system/remote monitoring system

Note: For Biomass Gasifier projects, document at sr. no. 1,2,3,4,5,10 only are required.

#Documents (marked with #) are required to be submitted in original to Implementing Agency. However, developers are required to produce original of other documents as and when required by IA.

FORMAT FOR FORWARDING LETTER BY LEAD BANK/ FI

F.No. <letter no.>

Date <date>

To,

Subject: Application of M/s <developer name> for availing Central Financial Assistance (CFA) for setting up of < project details> at <location> under <Programme name>-reg

We are forwarding the application and proposal of M/s <developer name> for Central Financial Assistance (CFA) for setting up of <project details> at <location> under <Programme name>. The project is financed by us.

1. We endorse and authenticate the financial parameters incorporated in the proposal and consider the project to be **technically feasible and economically viable**. We also confirm that the aforementioned project is under-installation as on date and not commissioned yet. We do hereby recommend this project for "In-Principle" approval and release of eligible CFA as per Programme guidelines.

2. In view of the request by the applicant, please find enclosed the following documents for consideration of their application for the CFA:

<List of Documents submitted wrt Programme guidelines>

Thanking you.

<Name>

<Sign and stamp>

CC:

<developer name>

INDICATIVE FORMAT FOR DPR

S.No.	Description
(A) TECHNICAL & COMMERCIAL	
1.	Introduction
2.	Project at a Glance and Executive Summary
3.	Justification of the project capacity (Analyse potential and characteristics of various suitable feedstock)
4.	Availability of Feed Materials, its types & procurement procedure
5.	Technology description- <ul style="list-style-type: none"> • Description of main Plant Equipment, Auxiliary Equipment and systems with technical specifications • Description of Plant Electrical System • Plant Instrumentation and Control system
6.	Schematics and Drawings
7.	Project implementation – Execution and management plan Engineering Procurement and Construction plan
8.	Plant layout, land area requirement & existing infrastructure facilities
9.	Operation & Maintenance set up
10.	Manpower requirement
11.	Environment impact/protection management (Government regulation and clearance required), if applicable
12.	Socio-economic impact in the region due to project implementation
13.	Project cost estimate (site development, civil works, plant machinery, roads & building, water supply & public health, electrical works, fire protection system, office equipment, furniture & automation etc.)
14.	Cost of generation, financial analysis and Techno economic feasibility
15.	Risk and sensitivity analysis

FORMAT FOR UNDERTAKING

We M/s <developer> do hereby solemnly declare and affirm as under:

1. That proposed project for generation of <details> using <waste> is situated at <address>. The proposed plant will have configuration of all required standard equipment and components as per Programme guidelines.
2. We certify that all machinery/equipment/plant for which CFA is being applied are new. CFA for the new equipment/machinery/plant under reference has not been taken earlier from any programme/scheme of the Government of India nor will it be taken from any programme or scheme of any other Ministry/Department of Government of India in future. In case of violation of this clause the Implementing Agency/MNRE will be entitled to recover the CFA released for <project> by MNRE with interest from us.
3. We will operate the above mentioned <project> for minimum 10 years after its commissioning and shall not dislocate the same without prior permission of the Ministry.
4. We will share generation data with MNRE or any other designated agency through installation of SCADA System/remote monitoring system.
5. We will take all necessary statutory clearances for the proposed plant from appropriate Central Govt./State Govt./Statutory bodies/institutions/agencies authorized to grant such clearances before establishing or commissioning of the plant as applicable for the particular stage of the project.
6. The Implementing Agency/MNRE shall have the right to get all the project related data to publish success stories/case studies/technical papers and for inspection and evaluation on the operation and performance aspects of the plants.
7. Above content of this affidavit are true and correct to the best of my knowledge and acceptable to the undersigned.

Authorized Signatory (Sign & stamp)

Name: _____

Designation: _____

Date: <_____>

Place: <_____>

FORMAT OF COMMISSIONING CERTIFICATE

MNRE "In-Principle" approval no. and date:	
Project name:	
Details of Plants commissioned:	
Project commissioned by :	
Commissioning Date:	
Commissioning witnessed by: (Attach Photographs of the plant's commissioning)	

This is to certify that the commissioning of the plant with installed capacity of <installed capacity & output> has been successfully carried out on <Date> by < Developer's Name > under supervision of <Inspection agency> as per specification, drawings with acceptable quality. Process and MNRE's "In-Principle" approval/guideline.

Developer's Name:	Commissioning Authority:
Company name:	Agency name:
contact name:	contact name:
title:	title:
contact information:	contact information:
Signature & Stamp:	Signature & Stamp:
Date:	Date:

FORMAT FOR INSPECTION REPORT BY INSPECTION AGENCY

MNRE “In-Principle” approval No. _____

Capacity of the project as per “In-Principle” approval:

Installed capacity of the Project:

Name of the Inspecting Agency:

General Information

1.	Name and Address of the beneficiary	
2.	Date of commissioning	
3.	Size of the plant/Model	
4.	Capacity of the plant	
5.	Total Cost of the project	
6.	CFA as per MNRE “In-Principle” approval	

Inspection Details:

1. Visiting Date :-
2. Visiting Official:-
3. Biogas Generated/ day:-
4. Bio-CNG Generated/ Power Generation per day:-
5. Biogas/Bio-CNG/Power Generation Data:
 - a. 72 Hours operation indicating date and time
 - b. 3 Months Operation Report with date:-
6. Rated Capacity ---- % observed during the inspection
7. Use of Biogas/Bio-CNG/Power produced in the Plant:-

This is to certify that the above information given by me on behalf of my firm/ company is correct in all respects and no factual information has been suppressed.

(Signature of the Applicant)

With Stamp

(Signature of the Verifying Officer from Inspection Agency)

With Stamp

FORMAT FOR PLANT PERFORMANCE REPORT

MNRE “In-Principle” approval No. _____

Capacity of the project as per “In-Principle” approval:

Installed capacity of the Project:

Name of the Inspection Agency:

Name & Address of the beneficiary organization & Project Site:

S. No.	Date (dd/mm/yyyy)	Plant operating hours	Daily feedstock feeding	Actual Raw biogas Generation recorded from Energy meter	Actual BioCNG/ electricity units produced Per day recorded from Energy meter reading	Rated Biogas/ BioCNG/ Power generation capacity	PLF (%)
					A	B	(A/B)*100
		Hrs	Tons/ day	(Cubic Metre/ Day)	kg/Day or kWh as applicable	kg/Day or kWh as applicable	

1. Signature of the Beneficiary

2. Name/Signature/Stamp of the authorized Officer of Inspection Agency

Date:

Place:

LIST OF BIOGAS DEVELOPEMNT & TRAINING CENTER (BDTCS)

1. Head, BDTC, Department of Mechanical Engineering, Indian Institute of Technology, Guwahati-781039, Assam. Email: lopab@iitg.ac.in
2. Head, BDTC, Centre for Rural Development & Technology (CRDT), Indian Institute of Technology, Delhi-110016. Email: vkvijay@rdat.iitd.ernet.in; ram.chandra6dec@gmail.com
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DEFINITIONS

1. **Biodegradable waste** means any organic material that can be degraded by micro-organisms into simpler stable compounds;
2. **Biomethanation/ Anaerobic digestion** means a process which entails enzymatic decomposition of the organic matter/ biodegradable waste by microbial action to produce methane rich biogas;
3. **Biogas** means a gas produced through Biomethanation/ Anaerobic digestion of organic matter like fruit & vegetable waste, cattle dung, press mud, crop residues etc.;
4. **BioCNG/Enriched Biogas/CBG** to be produced shall meet the specifications of BIS IS 16087: 2016 or any other further revisions in the said specifications;
5. **Biogas based power project**–The project that produces electricity from biogas using 100% biogas fired engine or through firing in boiler or any other technology;
6. **Biomass** resources are the biodegradable and non-edible fraction of products, wastes and residues from agriculture, forestry and related industries as well as the biodegradable fraction of industrial and municipal wastes.
7. **Biomass Gasifier for Thermal Application**–The project that produces producer gas/syngas from biomass/biowaste through gasification process using Gasifier system for utilizing the produced gas for thermal applications;
8. **Biomass Gasifier for Electrical Application**–The project that produces electricity from producer gas/syngas using 100% producer gas engine or dual fuel engine;
9. BioURJA Portal (www.Biourja.mnre.gov.in)
10. **'Expansion project'** shall include any addition of new capacity to the existing operating plant;
11. **Gasification:** the process of incomplete combustion of biomass/biowaste resulting in production of combustible gases consisting of a mixture of carbon monoxide (CO), hydrogen (H₂) and traces of methane (CH₄) which is called producer gas/syn gas;
12. **Incineration:** means an process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;
13. **'Installed capacity'** or 'IC' means the name plate capacity of the generating unit.
14. **Municipal solid waste based power projects**–The project that generates electricity using municipal solid waste as fuel based on Rankine cycle technology or any approved technology.
15. **'Municipal solid waste'** means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2 of MSW 2016.
16. **'Plant Load Factor'** or '(PLF)' is ratio of average electricity/energy generated by the plant to the maximum electricity/energy that could have been generated in a given time.

- 17. Project Commissioning:** Project is termed as commissioned when installation of equipment and machineries to achieve the as per rated project capacity is completed and plant starts generating the desired output.
- 18. Project Cost** includes cost of all plant machinery, equipment, building and other structures excluding land cost.
- 19. Pyrolysis** is the heating of an organic material, such as biomass/biowaste, in the absence of oxygen.
- 20. State Nodal Agency (SNA)**, for the purpose of this programme, is an agency in a State as may be designated by MNRE for carrying out inspection of the waste to energy plant;
- 21. "Waste"** for the purpose of this guideline is biowaste such as fruit & vegetable waste, cattle dung, agricultural and forestry waste/residue (e.g., straws and stalks) or by-products of processing operations of agricultural produce (e.g., husks, shells, deoiled cakes, etc);.
- 22. Waste to Energy:** project means a facility that processes wastes to produce biogas, bioCNG or electricity.
- 23. Waste to Energy Project Developer (Developer)** means any Company, Consortium of Companies or a Joint Venture (JV)/ Special Purpose Vehicle (SPV) interested in seeking the CFA under the programme. The company or a partner of the Consortium, JV/ SPV interested in availing the benefits of the programme can be Local Bodies / Municipal Corporations, Govt. or Private Sector Companies/ firms, Central Public Sector Undertaking (CPSU), Joint Sector Companies, Trusts, NGO, Societies, Cooperatives, Entrepreneurs, Partnership firms, Limited Liability Partnerships, Energy Service Companies (ESCOs).