

GUIDELINES FOR THE IMPLEMENTATION OF BIOMASS STEAM GENERATION PROGRAMME 2021-22

The guidelines to be followed for the implementation of Biomass Steam Generation Programme of ANERT during 2021-22 are detailed below:

OBJECTIVES

The objective of the programme is to popularise the application of biomass steam generation systems for effectively burning the biomass fuels such as residues of wood, coconut shells, plywood peels etc for the production of steam for community cooking application. The State Plan Scheme will be supported with significant State Government subsidy to promote such biomass steam generation systems for community and institutional applications in Govt. and Govt. aided sectors.

DESCRIPTION OF THE SCHEME, TARGET & ANERT'S SUBSIDY

Biomass Steam generation system consists of a combustion chamber in which biomass residues such as wood pieces, coconut shells, briquettes, plywood peels etc are burnt efficiently to heat water to produce steam. This steam is passed through insulated pipes for feeding into the steam cooking vessels to enable fast and hygienic cooking in the community kitchen. The exhaust gas is fed to atmosphere through high chimney so that the kitchen remains free from smoke and ash.

The intended beneficiaries have to contact the manufacturers of biomass steam generation systems who possess valid test certificates for the steam generation systems. The efficiency of the steam generation system should be 50 % minimum for considering under the financial incentive programme. The manufacturers should possess test certificates issued from recognised thermal test laboratories or engineering colleges to this effect to eligible their systems for the incentive.

The beneficiaries have to submit the duly filled Registration Form enclosed as Annexure I along with the details of the steam generation system including test certificate of the similar biomass steamer for considering the systems for State Govt. subsidy. Installation work of the system can be started only after getting registration number from ANERT. There should be at least 200 persons benefitted by the steam cooking daily. The manufacturer of the system has to provide one year warranty for the system and four year AMC on expiry of the warranty period.

The target for year 2021-22 is 5 Nos.

The State Govt subsidy applicable is @ Rs.4,00,000/- per system or 50 % of the total cost of the system, whichever is lower.

The registration for subsidy will normally be valid for a period of three months from the date of registration, within which the commissioning of the system has to be completed and subsidy application submitted. The registration period shall be extended in case of genuine reasons furnished by the beneficiary and subject to availability of funds from Government. The beneficiary will be eligible for subsidy only if the project proposal is approved by ANERT. The State Government subsidy will be available to the beneficiary on completion of the commissioning of the system and by submitting the following documents to ANERT within the validity period of registration.

1. Subsidy application in the prescribed proforma (Annexure II)
2. Joint Inspection Report as given in Annexure III
3. Project Completion and Performance Report as given in Annexure IV
4. Audited Statement of Expenditure as in Annexure V
5. Copy of invoice/bill of the biomass steam generation system
6. Photographs of the commissioned system (Biomass combustion chamber, chimney, insulated pipes, blower, steam cooking vessels and other components)

Technical personnel from ANERT will be inspecting the performance of the system and compliance of technical parameters of the components of the system and the inspection report is mandatory for the release of subsidy to the beneficiary.

Yours faithfully,

Encl: As above

CHIEF EXECUTIVE OFFICER

Copy to: All the District Offices, Website of ANERT

Registration Form to be submitted by Beneficiary to ANERT for installation of Biomass Steam Generation Systems for Cooking Application under State Subsidy Scheme

| | | |
|-----|--|--|
| 1. | Name of Beneficiary with complete postal address, telephone, e-mail address etc. | |
| 2. | Details of Registration Certificate of Institution / Organisation | |
| 3. | Whether Profit making/Non-profit Making | |
| 4. | Place of installation of the Biomass steam generation system and available area | |
| 5. | Distance of place of installation of Biomass Steamer from kitchen/utility point | |
| 6. | Number of people for whom food is to be cooked per day | |
| 7. | Present arrangement for community cooking /back-up facilities | |
| 8. | Name, address and phone numbers of the Manufacturer/Supplier selected for installation of Biomass Steamer | |
| 9. | Proposed date of commissioning of the system | |
| 10. | Total cost of the proposed biomass steam generation system | |
| 11. | Amount of State subsidy eligible (State subsidy is available @ Rs.4 lakh per system or 50% of the total cost of the system whichever is lower) | |
| 12. | Bank account details of the beneficiary Account No: Name and Address of Bank IFSC Code of Bank | |

(*) Copy of the project report of the proposed biomass steam generation system with test certificate of the similar biomass steam generation system from approved thermal testing lab or engineering colleges to be submitted along with this form

Date:

Signature & Name of Beneficiary (with seal)

Format for submission of subsidy application by beneficiary to ANERT for installation of Biomass Steam Generation System for community cooking purpose

| | | |
|----|---|--|
| 1 | Name of beneficiary with complete postal address, telephone, e-mail address etc. | |
| 2 | Registration number and date of the system allotted from ANERT | |
| 3 | Requirement of application (Number of persons benefitted by steam cooking) | |
| 4 | Components of the biomass steam generation system: | |
| 5 | Total cost for the solar steam generation system (Cost of combustion chamber, insulated lines, blower, steam cooking vessels, safety devices and related components only. AMC charges excluded from total cost) | |
| 6 | Heat transfer medium (steam / hot air / pressurized hot water / hot oil / any other) | |
| 7 | Available temperature and pressure of useful heat from the system | |
| 8 | Pre-existing arrangement for heat generation (boiler / LPG burner / any other) | |
| 9 | Fuel savings after installation of the system compared with prevailing fuel consumption per day | |
| 10 | Whether the biomass steamer is integrated with pre existing boiler / heater / burner or a totally new system? If it is a new system, balance of components to be mentioned | |
| 11 | Name, address , phone numbers and email ID of the manufacturer of the system | |
| 12 | Average heat delivery of the biomass steamer per day | |
| 13 | Total cost including component wise cost of the system | |

| | | |
|----|---|--|
| 14 | ANERT's financial assistance sought as per the scheme guidelines | |
| 15 | Balance cost of the system which was met by the beneficiary | |
| 16 | Date of completion of the work including commissioning | |
| 17 | <p>Commitments from the beneficiary</p> <ol style="list-style-type: none"> 1. All the above information furnished above are true and with reference to the records maintained 2. We will not dismantle the biomass steam generation system at any stage without prior written permission of ANERT 3. We will regularly use and properly maintain the system and submit quarterly performance report for a minimum period of one year from the date of commissioning of the system. 4. We will take Annual Maintenance Contract (AMC) for a period of at least 4 years after completion of the warranty period, from manufacturer 5. We will allow officials of ANERT and other Govt. offices for inspecting the performance of the system and allow visitors to study the operation of the system. | |

Signature :

Name :

Designation :

Date: Name and address of beneficiary institution :

Place: Office Stamp

Format for Joint Inspection Report

1. Name of the project :

2. Name and address of beneficiary :

3. Registration No. and date of the system :

4. Place of installation of the system :

5. Total cost of the system :

6. Date of commissioning of the system :

7. Name of the manufacturer of the system:

Certified that the above project has been inspected by us and the following has been ascertained (Please tick Yes / No)

| Sl. No. | Check details | Yes | No |
|---------|---|-----|----|
| 1 | Whether the system has been installed and commissioned as per the proposed specifications and its workmanship is good with proper insulation done for all required components? | | |
| 2 | Whether the biomass steamer complies with the minimum thermal efficiency of 50 % as indicated in the test report? | | |
| 3 | Whether the supplier has given one year warranty for the system? | | |
| 4 | Whether the supplier has given four year AMC for the system on expiry of the warranty period/ | | |
| 5 | Total cost for the solar steam generation system reported is inclusive of the cost of combustion chamber, insulated lines, blower, steam cooking vessels, safety devices and related components. AMC charges excluded from total cost | | |
| 6 | Has the performance data generated for the system for a period of at least 15 days (as enclosed) been studied? | | |

| | | | |
|---|---|--|--|
| 7 | Is the system delivering the required heat output as envisaged in the proposal? | | |
| 8 | Is the system properly integrated with steam cooking vessels? | | |
| 9 | Is the beneficiary satisfied with the installation and performance of the system? | | |

Encl: As above

Signatures with name, designation, date and seal

(Manufacturer)

(Beneficiary)

(ANERT official)

Project Completion and Performance Report of the Biomass Steam Generation System

1. Name of beneficiary with complete :
postal address, telephone & e-mail address.
2. Registration number and date of the system :
allotted from ANERT
3. Address of installation site :
4. Date of commissioning of the project :
5. Number and size of steam cooking vessels used :
6. Type of conventional fuel used earlier :
7. Format for submitting performance report (For 15 days)

| Date | Operating hours | Output Kg/hr | quantity cooked per day (Kg) | Fuel saving per day (Kg/Lit) | Cost of fuel savings per day (Rs) |
|------|-----------------|--------------|------------------------------|------------------------------|-----------------------------------|
| | | | | | |
| | | | | | |
| | | | | | |

8. Performance overview: The performance of the system is satisfactory / not satisfactory. On an average, system delivers steam at the rate ofKg/hour and savings ofKg/ Litres of conventional fuel ofper day, benefiting a saving of Rs.....per day.
9. This is to certify that the manufacturer, viz,..... has successfully completed and handed over the system on, and it is working satisfactorily. Beneficiary will not decommission, replace or transfer the system for next 5 years without the prior approval from ANERT. A few photographs of the system are also attached with this report.

10. This is to certify that the system has actually been installed as per approved proposal and has been installed with 5 years warranty / AMC.
11. No subsidy or financial assistance other than ANERT's subsidy will be claimed for the installed system from any other agency.
12. If there is any deviation from the above declaration, the sanctioned subsidy will be refunded to ANERT by the beneficiary

Signature of beneficiary with date and seal

Name of authorised person

Signature of manufacturer with date and seal

Name of authorised person

AUDITED STATEMENT OF EXPENDITURE

(On the letter head of Chartered Accountant)

1. Name of beneficiary of subsidy programme :
2. Name of manufacturer / supplier of the system :
3. Registration number and date of the system:
4. Eligible ANERT subsidy for the project : Rs.

| Name of the project | Total estimated cost of the project (Rs) | Total actual expenditure incurred for installation of the system without AMC (Rs) |
|---------------------|--|---|
| | | |

5. Item wise statement of expenditure including invoice details:
6. Total cost for the maintenance of the system for next 4 years after the first year of installation:
7. Certified that an expenditure of Rs.has been spent by(Name of beneficiary) for installation of the biomass steam generation system. The beneficiary has paid the manufacturer of the system, viz, an amount of Rs. including subsidy and the eligible subsidy may be released to the beneficiary.

Certified by Chartered Accountant

(with name, signature, seal, date and membership number)