



# CHHATTISGARH BIOFUEL DEVELOPMENT AUTHORITY

(Department of Energy, Govt. of Chhattisgarh)

## छत्तीसगढ़ बायोफ्यूल विकास प्राधिकरण

(ऊर्जा विभाग, छत्तीसगढ़ शासन)



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Date: 06.05.2022

### **CORRIGENDUM NO. 01 TO TENDER NO. CBDA/2022/PT/002**

This Corrigendum contains the following:

| Sl. No. | Particulars  | Corresponding to tender page no(s). |
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**Note:** 1. This Corrigendum contains 14 pages including this page.

2. The above information is respect to Tender No. CBDA/2022/PT/002 uploaded in [www.cbda.in](http://www.cbda.in) as per provision in Clause No. 16.0 of said tender document of page no.19.

Sd/-

Chief Executive Officer

**CORRIGENDUM NO. 01 TO TENDER NO. CBDA/2022/PT/002****2.0 SUBMISSION OF BIDS**

Bids shall be submitted in the manner as described in “**Instructions To Bidders**” (ITB) of this bidding document. **Techno-Commercial Offer (Part 1)** shall contain original un-priced offer along with EMD.

**Price Bid (Part 2)** shall contain only price bid without any condition/deviation. The Rate shall be filled up, both in figures (in rupees and paisa) and in words. No overwriting or use of correction fluid shall be accepted. Any correction shall be legible and signed by the authorized signatory. In the event of difference between figures and words the amount mentioned in words shall prevail.

**3.0 ELIGIBILITY CRITERIA**

The Bidder should satisfy itself regarding the eligibility criteria before submission of the bid.

The Bidder should fulfill all of the following eligibility criteria from Para 3.1 to 3.4 below and provide necessary documents (annual report, related work-order, payment vouchers approved by the project promoting agency, project completion report/payment proofs etc.) for verification:

3.1 The Bidder applying for the tender must have executed projects in any one or more out of the following:

1. Agencies/Manufacturers/Suppliers/Companies/Societies/ other Licensee's of BARC (**AGENCY** or **Bidder** or **Bidders**) engaged in the supply of similar kind of equipments/ Biogas generation units/ Biogas based Power Plants, supplied, installed and maintained by them for any government recognized department/ agency, government research institutes, agriculture universities, community run Goshalas, State/Central govt. funded projects of similar kind.
2. Agency engaged in the supply, installation and Annual maintenance of biogas generation units run by State Government departments/ agencies will be given preference.

**and**

3.2 The Annual Turnover of the Bidder applying to be eligible for 1 (one) complete work of 'Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology for Research & Development purpose (say Nisargruna Plant)' shall be minimum Rs. 40,00,000/- (Rupees Forty lacs only) during any of last three financial years (i.e. 2021-22, 2020-21 & 2019-20). For any bidders applying to be eligible for more than one 'Nisargruna Plant' (subject to maximum 05 Nisargruna Plant), the annual turnover of that bidder shall be minimum Rs. 2,00,00,000/- (Rupees Two crores only) i.e. multiplied by number of Nisargruna Plant (5 Nisargruna Plant x Rs. 40,00,000/-) submitting bid.

**and**

3.3 The Bidder applying to become eligible for 1 (one) complete work of Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology for Research & Development purpose (say Nisargruna Plant) should have executed works as mentioned in Clause 3.1 above during any of the last three preceding financial years of following value:

3.3.1 Three completed work orders, each of minimum value of Rs. 3,00,000/- (Rupees Three lacs only)

**or**

3.3.2 Two completed work orders, each of minimum value of Rs 4,00,000/- (Rupees Four lacs only)

**or**

3.3.3 One completed work order of minimum value of Rs 5,00,000/- (Rupees Five lacs only)

**For bidder applying to be eligible for more than one Nisargruna Plant (maximum upto 5 (five) Nisargruna Plant) the value of execution of work should be equal to above respective amount (refer 3.3.1, 3.3.2 & 3.3.3) multiplied by number of Nisargruna Plant, bidder is submitting bid for. Bidder can quote for more than 5(five) Nisargruna Plant but would be eligible for maximum Nisargruna Plant.**

### 3.3 Past experience of the Bidder

3.4.1 Bidders executing work orders shall submit their past experience certificates indicating work orders completed as per Scope of work, within given time schedule & quality of work (as per specification) to the satisfaction of owners.

3.4.2 Bidder has to submit minimum 3 works completed as per 3.3.1, Two works as per 3.3.2 or minimum 1 work as per 3.3.3 within given time schedule, as per Scope & quality of work (as per specification given in the tender) to the satisfaction of owners.

3.4 The Bidder shall submit the details of the Eligibility Criteria (Para 3.1 to 3.4) in the format attached as **Annexure-II & Annexure-III of Instruction to Bidders (ITB)**.

3.5 A Ready Reckoner for calculating equipment wise eligibility criteria and turnover requirements for being eligible for consideration for more than one equipment:

|   | <b>1(one)<br/>Nisargruna<br/>Plant</b>                  | <b>2 (two)<br/>Nisargruna<br/>Plant</b> | <b>3(three)<br/>Nisargruna<br/>Plant</b> | <b>4(four)<br/>Nisargruna<br/>Plant</b> | <b>5(five)<br/>Nisargruna<br/>Plant</b> |
|---|---|---|--|---|---|
| Turnover requirements (in Rs.)                            | 40,00,000   | 80,00,000                               | 1,20,00,000                              | 1,60,00,000                             | 2,00,00,000                             |
|   | Eligibility criteria (in Rs) (Any one of the following) |   |  |   |   |
| Value of the <b>three</b> completed work orders <b>or</b> | 3,00,000  | 6,00,000                                | 9,00,000                                 | 12,00,000                               | 15,00,000                               |
| Value of <b>two</b> completed work orders <b>or</b>       | 4,00,000  | 8,00,000                                | 12,00,000                                | 16,00,000                               | 20,00,000                               |
| Value of <b>one</b> completed work orders <b>or</b>       | 5,00,000  | 10,00,000                               | 15,00,000                                | 20,00,000                               | 25,00,000                               |

**EQUIPMENT FORMATION****ANNEXURE- XII TO ITB**

Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose

**Components of NISARGRUNA Plant and their specifications:**

Nisargruna Plant has two major components. Table below give the list of different items constructed and used in the Plant. The dimensions and numbers of these items will be dependent on resource handling capacity of the Plant.

| Sl. No. | Component/ Equipment Code | Name of component/ Equipment | Qty. (No.) | Technical Specifications/ Guidelines  |
|---------|---------------------------|------------------------------|------------|---|
| 1       | PR                        | Processing Room              | 1          | Area should be sufficient for sorting of the 500 kg waste/day. No waste should be kept unprocessed. The space should also occupy the mechanical components like mixer/shredder, compressor, weighing scale, segregation platform. |
| 2       | RP                        | Receiving Platform           | 1          | For segregation of waste in biodegradable and non degraded material. Sufficient for storing the daily waste coming to the site.   |
| 3       | PD                        | Primary Digesters            | 1          | 5M <sup>3</sup> volume with RCC (M25) with partition wall in the middle. Wire mesh to be fitted at inlet to reduce impurities flowing inside digester with removal cover.   |
| 4       | MD                        | Main Digester                | 1          | 25M <sup>3</sup> volume with RCC (M25) with partition wall in the middle.   |
| 5       | TC                        | Transit Chamber              | 2          | One chamber each between pre digester to main digester and from main digester to manure pits.   |
| 6       | MP                        | Manure Pits                  | 2          | For collection of digested liquid for recycling purpose. Solids to be separated for manure purpose  |
| 7       | DS                        | Drying Shed                  | 1          | For drying of the manure and temporary storage of waste if excess.  |
| 8       | ST                        | Storage Shed                 | 1          | For storing of dried manure, slurry for disposal etc.   |
| 9       | BR                        | Balloon Room                 | 1          | Fire resistant material, rodent proof, no electric switches inside, caged structure.  |
| 10      | GS                        | Generator Shed               | 1          | The Shed should be water proof with all the electric components required for generator.   |
| 11      | ST                        | Sorting Table                |            | SS-304 non corrosive material, if required.   |
| 12      | CB                        | Conveyor Belt                | 1          | Suitable for the motor as per capacity of motor, if required.   |
| 13      | MX                        | Mixer                        | 1          | 3-5 HP should make the waste/cowdung into free-flowing slurry.  |
| 14      | WS                        | Weighing Scale               | 1          | 1-100 kg standard ISI make and specifications(analog hanging type with arms)  |
| 15      | GH                        | Gas holder                   | 1          | MS 4 mm with fiber coat from outside and epoxy coat inside  |
| 16      | AC1                       | Air Compressor               | 1          | 3 HP with standard requirement and safety features, optional.   |
| 17      | AC2                       | Air Compressor               | 1          | 2 HP with standard requirement and safety features  |
| 18      | SP                        | Slurry Pump                  | 1          | 2 HP with standard requirement and safety features  |

|    |    |  |     |  |
|----|----|--|-----|--|
| 19 | WP | Water Tankage with Pump  | 1   | Water tank PVC made 1000 lt. capacity of BIS standard with 0.5 HP water pump with standard requirement and safety features   |
| 20 | GM | Gas Meter  | 1   | For online monitoring of gas generated in the system. Standard ISI make, analog however, digital display will be preferred   |
| 21 | GS | Gas Stove  | 2   | Should be suitable for biogas burning with all safety features, min. 8 cft. capacity along with piping from digester to balloon to scrubber to generator , approx. 15 m. length  |
| 22 | GB | Gas Blower   | 1   | 8-10 m <sup>3</sup> /hour and at 75 mbar at user end, optional   |
| 23 | GB | Gas Balloon  | 1   | <b>10-20</b> cubic meter, neoprene or double membrane with all safety features including cutoff mechanism once it is full.   |
| 24 | WF | Wall mounted Fans  | 2   | Standard ISI make and features, as & when required.  |
| 25 | EF | Exhaust Fan  | 1   | Standard ISI make and features   |
| 26 | AG | Aeration grid  | 1   | For continuous supply of the air for predigester connected with compressor, as per requirement.  |
| 27 | MG | Methane recycling grid   | 1   | For recycling methane in the main digester for improving its purity.   |
| 28 | WT | Water Trap   | 3-4 | To remove moisture from gas pipe   |
| 29 | PS | Biogas purification system Co <sub>2</sub> & H <sub>2</sub> S scrubber, moisture remover |     | Will be installed as per requirement at site   |
| 30 | EP | Electrical Panel   |     | Standard ISI make and safety features with MCB   |
| 31 | KT | Temperature, pH measurement kit  |     | Standard material (analog display)   |
| 32 | TK | Toolkit  |     | Standard approved by the supplier  |
| 33 | IC | Installation and Commissioning   |     | Assembling of all the civil, mechanical components, feedstock feeding and processing of waste till getting gas formation   |
| 34 | BG | Biogas Generator   | 1   | Ranges from 7.5 KVA (5KW) to 12.5 KVA (10KW) generator manufactured indigenously for biogas operation as per BIS standards with all safety features and sound proof mechanism. Biogas generator should have inbuilt gas purification system. |

**Note:**

1. CBDA reserve the right to add/ delete equipments apart from above mentioned equipments.
2. Bidders are advised to make prior visits to place of installation of equipments before quoting price for equipments mentioned as in Annexure A of SCC.
3. The above items are indicative in nature and not exhaustive.
4. All equipments along with required civil works, accessories, etc. shall be at bidder's scope.
5. The Plant should be technically generating electricity and organic manure (as detailed in '**ANNEXURE-XIIB TO ITB**')

**ANNEXURE-A of SCC****Section II  
Scope of Work (SoW) :**

Scope of Work and Time Schedule for Activity for: Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose, as per specific quality criteria given below

The scope of work under this contract shall include in general but not limited to the following:

- 1.The Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose as per process diagram at Annexure-XII A to ITB.
- 2.Specifications of few equipments for Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose as per specifications below:

| Sl. No. | Component/ Equipment Code | Name of component/ Equipment | Qty. (No.) | Technical Specifications/ Guidelines  |
|---------|---------------------------|------------------------------|------------|---|
| 1       | PR                        | Processing Room              | 1          | Area should be sufficient for sorting of the 500 kg waste/day. No waste should be kept unprocessed. The space should also occupy the mechanical components like mixer/shredder, compressor, weighing scale, segregation platform. |
| 2       | RP                        | Receiving Platform           | 1          | For segregation of waste in biodegradable and non degraded material. Sufficient for storing the daily waste coming to the site.   |
| 3       | PD                        | Primary Digesters            | 1          | 5M <sup>3</sup> volume with RCC (M25) with partition wall in the middle. Wire mesh to be fitted at inlet to reduce impurities flowing inside digester with removal cover  |
| 4       | MD                        | Main Digester                | 1          | 25M <sup>3</sup> volume with RCC (M25) with partition wall in the middle.   |
| 5       | TC                        | Transit Chamber              | 2          | One chamber each between pre digester to main digester and from main digester to manure pits.   |
| 6       | MP                        | Manure Pits                  | 2          | For collection of digested liquid for recycling purpose. Solids to be separated for manure purpose  |
| 7       | DS                        | Drying Shed                  | 1          | For drying of the manure and temporary storage of waste if excess.  |
| 8       | ST                        | Storage Shed                 | 1          | For storing of dried manure, slurry for disposal etc.   |
| 9       | BR                        | Balloon Room                 | 1          | Fire resistant material, rodent proof, no electric switches inside, caged structure.  |
| 10      | GS                        | Generator Shed               | 1          | The Shed should be water proof with all the electric components required for generator.   |
| 11      | ST                        | Sorting Table                |            | SS-304 non corrosive material, if required.   |
| 12      | CB                        | Conveyor Belt                | 1          | Suitable for the motor as per capacity of motor, if required.   |
| 13      | MX                        | Mixer                        | 1          | 3-5 HP should make the waste/cowdung into free-flowing slurry.  |

|    |     |  |     |  |
|----|-----|--|-----|--|
| 14 | WS  | Weighing Scale   | 1   | 1-100 kg standard ISI make and specifications(analog hanging type with arms)   |
| 15 | GH  | Gas holder   | 1   | MS 4 mm with fiber coat from outside and epoxy coat inside   |
| 16 | AC1 | Air Compressor   | 1   | 3 HP with standard requirement and safety features, optional.  |
| 17 | AC2 | Air Compressor   | 1   | 2 HP with standard requirement and safety features   |
| 18 | SP  | Slurry Pump  | 1   | 2 HP with standard requirement and safety features   |
| 19 | WP  | Water Tankage with Pump  | 1   | Water tank PVC made 1000 lt. capacity of BIS standard with 0.5 HP water pump with standard requirement and safety features   |
| 20 | GM  | Gas Meter  | 1   | For online monitoring of gas generated in the system. Standard ISI make, analog however, digital display will be preferred   |
| 21 | GS  | Gas Stove  | 2   | Should be suitable for biogas burning with all safety features, min. 8 cft. capacity along with piping from digester to balloon to scrubber to generator , approx. 15 m. length  |
| 22 | GB  | Gas Blower   | 1   | 8-10 m <sup>3</sup> /hour and at 75 mbar at user end, optional   |
| 23 | GB  | Gas Balloon  | 1   | 10-20 cubic meter, neoprene or double membrane with all safety features including cutoff mechanism once it is full.  |
| 24 | WF  | Wall mounted Fans  | 2   | Standard ISI make and features, as & when required.  |
| 25 | EF  | Exhaust Fan  | 1   | Standard ISI make and features   |
| 26 | AG  | Aeration grid  | 1   | For continuous supply of the air for predigester connected with compressor, as per requirement.  |
| 27 | MG  | Methane recycling grid   | 1   | For recycling methane in the main digester for improving its purity.   |
| 28 | WT  | Water Trap   | 3-4 | To remove moisture from gas pipe   |
| 29 | PS  | Biogas purification system Co <sub>2</sub> & H <sub>2</sub> S scrubber, moisture remover |     | Will be installed as per requirement at site.  |
| 30 | EP  | Electrical Panel   |     | Standard ISI make and safety features with MCB   |
| 31 | KT  | Temperature, pH measurement kit  |     | Standard material (analog display)   |
| 32 | TK  | Toolkit  |     | Standard approved by the supplier  |
| 33 | IC  | Installation and Commissioning   |     | Assembling of all the civil, mechanical components, feedstock feeding and processing of waste till getting gas formation   |
| 34 | BG  | Biogas Generator   | 1   | Ranges from 7.5 KVA (5KW) to 12.5 KVA (10KW) generator manufactured indigenously for biogas operation as per BIS standards with all safety features and sound proof mechanism. Biogas generator should have inbuilt gas purification system. |

**Note:**

1. The Above list of equipment/component for Nisargruna Plant and its specification are indicative only and not exhaustive in nature.
2. The cost of delivery of the specified Nisargruna Plant to different site(s) as per specification of list of equipment/component in Sl. No. 1 above, shall include all manpower, transportation costs, tools and tackles, loading & unloading at the point of transfer of ownership.
3. SoW includes rate of material (basis rate + GST/other taxes, as applicable, all inclusive), creation of item as per specification above including labour, transport, watch & ward is part of the Tender
4. The Bidder shall submit a copy of detailed engineering drawing of 'Process Layout Diagram', the bidder intended to Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose. However, the same process layout diagram need to approved by CBDA, in consultation with BARC, during layout review stage prior to installation.
5. The bidder shall have to commission the Nisargruna Plant within 3 (three) months from the date of issuance of work order, further extendable for another 1 (one) month, subject to pre- conditions, at the sole discretion of CBDA. In addition, post commissioning, 3 (three) months successful running and comprehensive free on-site training of personnel by service/application engineer shall be at bidder's scope.
6. Component/ Equipment mentioned in Sl. No. 1,2,7,8,9 & 10 may be an integrated shed with GI sheet roof of around 1000 sq.ft. carpet area.
7. The bidder shall have to display a board that clearly mentioned the Project name "Manufactured by Chhattisgarh Biofuel Development Authority (CBDA), license from Bhabha Atomic Research Centre, Department of Atomic Energy, Mumbai." Logo of BARC along with logo of CBDA, shall be prominently displayed along with all its major components make, specifications, name of site and bidder's address with contact number for any complaint/ trouble shooting.



**Annexure-I(A) to SCC****LIST OF EQUIPMENTS TO BE SUPPLIED AND INSTALLED FOR SETTING UP**

The Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose

**1.0. Specification of Equipments**

AGENCY has to ensure that each specification as mentioned in Table 1.

**Table 1: Specifications of Equipment/ Components**

| Sl. No. | Component/ Equipment Code | Name of component/ Equipment | Qty. (No.) | Technical Specifications/ Guidelines  |
|---------|---------------------------|------------------------------|------------|---|
| 1       | PR                        | Processing Room              | 1          | Area should be sufficient for sorting of the 500 kg waste/day. No waste should be kept unprocessed. The space should also occupy the mechanical components like mixer/shredder, compressor, weighing scale, segregation platform. |
| 2       | RP                        | Receiving Platform           | 1          | For segregation of waste in biodegradable and non degraded material. Sufficient for storing the daily waste coming to the site.   |
| 3       | PD                        | Primary Digesters            | 1          | 5M <sup>3</sup> volume with RCC (M25) with partition wall in the middle. Wire mesh to be fitted at inlet to reduce impurities flowing inside digester with removal cover.   |
| 4       | MD                        | Main Digester                | 1          | 25M <sup>3</sup> volume with RCC (M25) with partition wall in the middle.   |
| 5       | TC                        | Transit Chamber              | 2          | One chamber each between pre digester to main digester and from main digester to manure pits.   |
| 6       | MP                        | Manure Pits                  | 2          | For collection of digested liquid for recycling purpose. Solids to be separated for manure purpose  |
| 7       | DS                        | Drying Shed                  | 1          | For drying of the manure and temporary storage of waste if excess.  |
| 8       | ST                        | Storage Shed                 | 1          | For storing of dried manure, slurry for disposal etc.   |
| 9       | BR                        | Balloon Room                 | 1          | Fire resistant material, rodent proof, no electric switches inside, caged structure.  |
| 10      | GS                        | Generator Shed               | 1          | The Shed should be water proof with all the electric components required for generator.   |
| 11      | ST                        | Sorting Table                |            | SS-304 non corrosive material, if required.   |
| 12      | CB                        | Conveyor Belt                | 1          | Suitable for the motor as per capacity of motor, if required.   |
| 13      | MX                        | Mixer                        | 1          | 3-5 HP should make the waste/cowdung into free-flowing slurry.  |
| 14      | WS                        | Weighing Scale               | 1          | 1-100 kg standard ISI make and specifications(analog hanging type with arms)  |
| 15      | GH                        | Gas holder                   | 1          | MS 4 mm with fiber coat from outside and epoxy coat inside  |

|    |     |  |     |  |
|----|-----|--|-----|--|
| 16 | AC1 | Air Compressor   | 1   | 3 HP with standard requirement and safety features, optional.  |
| 17 | AC2 | Air Compressor   | 1   | 2 HP with standard requirement and safety features   |
| 18 | SP  | Slurry Pump  | 1   | 2 HP with standard requirement and safety features   |
| 19 | WP  | Water Tankage with Pump  | 1   | Water tank PVC made 1000 lt. capacity of BIS standard with 0.5 HP water pump with standard requirement and safety features   |
| 20 | GM  | Gas Meter  | 1   | For online monitoring of gas generated in the system. Standard ISI make, analog however, digital display will be preferred   |
| 21 | GS  | Gas Stove  | 2   | Should be suitable for biogas burning with all safety features, min. 8 cft. capacity along with piping from digester to balloon to scrubber to generator , approx. 15 m. length  |
| 22 | GB  | Gas Blower   | 1   | 8-10 m <sup>3</sup> /hour and at 75 mbar at user end, optional   |
| 23 | GB  | Gas Balloon  | 1   | 10-20 cubic meter, neoprene or double membrane with all safety features including cutoff mechanism once it is full.  |
| 24 | WF  | Wall mounted Fans  | 2   | Standard ISI make and features, as & when required.  |
| 25 | EF  | Exhaust Fan  | 1   | Standard ISI make and features   |
| 26 | AG  | Aeration grid  | 1   | For continuous supply of the air for predigester connected with compressor, as per requirement.  |
| 27 | MG  | Methane recycling grid   | 1   | For recycling methane in the main digester for improving its purity.   |
| 28 | WT  | Water Trap   | 3-4 | To remove moisture from gas pipe   |
| 29 | PS  | Biogas purification system Co <sub>2</sub> & H <sub>2</sub> S scrubber, moisture remover |     | Will be installed as per requirement at site.  |
| 30 | EP  | Electrical Panel   |     | Standard ISI make and safety features with MCB   |
| 31 | KT  | Temperature, pH measurement kit  |     | Standard material (analog display)   |
| 32 | TK  | Toolkit  |     | Standard approved by the supplier  |
| 33 | IC  | Installation and Commissioning   |     | Assembling of all the civil, mechanical components, feedstock feeding and processing of waste till getting gas formation   |
| 34 | BG  | Biogas Generator   | 1   | Ranges from 7.5 KVA (5KW) to 12.5 KVA (10KW) generator manufactured indigenously for biogas operation as per BIS standards with all safety features and sound proof mechanism. Biogas generator should have inbuilt gas purification system. |

1.2 AGENCY has to maintain a track record of regular movement of the Equipments from stockpoint to the installation site.

### Reporting Formats (MV)

**MV: Reporting format for** The Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose

Equipments supplied to site for installation, installation of equipments completed, timeline for completion of all installations and trial run has been completed and the details of the same is given below:

| <b>SL No</b> | <b>Equipment /Activity Code</b> | <b>Name ofEquipment /Activity</b>                               | <b>Make</b> | <b>Date/ Period of construction / installation</b> | <b>Remarks (if any) please specify no. oftrial samples tested</b> |
|--------------|---------------------------------|---|-------------|--|---|
| 1            | PR                              | Processing Room   |             |  |   |
| 2            | RP                              | Receiving Platform  |             |  |   |
| 3            | PD                              | Primary Digesters   |             |  |   |
| 4            | MD                              | Main Digester   |             |  |   |
| 5            | TC                              | Transit Chamber   |             |  |   |
| 6            | MP                              | Manure Pits   |             |  |   |
| 7            | DS                              | Drying Shed   |             |  |   |
| 8            | ST                              | Storage Shed  |             |  |   |
| 9            | BR                              | Balloon Room  |             |  |   |
| 10           | GS                              | Generator Shed  |             |  |   |
| 11           | ST                              | Sorting Table   |             |  |   |
| 12           | CB                              | Conveyor Belt   |             |  |   |
| 13           | MX                              | Mixer   |             |  |   |
| 14           | WS                              | Weighing Scale  |             |  |   |
| 15           | GH                              | Gas holder  |             |  |   |
| 16           | AC1                             | Air Compressor  |             |  |   |
| 17           | AC2                             | Air Compressor  |             |  |   |
| 18           | SP                              | Slurry Pump   |             |  |   |
| 19           | WP                              | Water Tankage with Pump   |             |  |   |
| 20           | GM                              | Gas Meter   |             |  |   |
| 21           | GS                              | Gas Stove   |             |  |   |
| 22           | GB                              | Gas Blower  |             |  |   |
| 23           | GB                              | Gas Balloon   |             |  |   |
| 24           | WF                              | Wall mounted Fans   |             |  |   |
| 25           | EF                              | Exhaust Fan   |             |  |   |
| 26           | AG                              | Aeration grid   |             |  |   |
| 27           | MG                              | Methane recycling grid  |             |  |   |
| 28           | WT                              | Water Trap  |             |  |   |
| 29           | PS                              | Biogas purification system Co2 & H2S scrubber, moisture remover |             |  |   |
| 30           | EP                              | Electrical Panel  |             |  |   |
| 31           | KT                              | Temperature, pH measurement kit                                 |             |  |   |
| 32           | TK                              | Toolkit   |             |  |   |
| 33           | IC                              | Installation and Commissioning                                  |             |  |   |
| 34           | BG                              | Biogas Generator  |             |  |   |

**Annexure - C****RURAL INDUSTRIAL PARK (RIPA)/GOTHAN LOCATIONS FOR COMMISSIONING OF BIOGAS DRIVEN POWER GENERATION PLANT BASED ON BARC TECHNOLOGY****( as provided by the Dept. of Agriculture, Govt. of CG)**

|                      |         |         |         |        |        |          |          |                 |          |          |          |          |          |        |        |                         |          |         |        |                       |
|----------------------|---------|---------|---------|--------|--------|----------|----------|-----------------|----------|----------|----------|----------|----------|--------|--------|-------------------------|----------|---------|--------|-----------------------|
| <b>District</b>      | Raipur  | Raipur  | Raipur  | Raipur | Raipur | Raipur   | Raipur   | Raipur          | Raipur   | Raipur   | Raipur   | Raipur   | Raipur   | Raipur | Raipur | Raipur                  | Bemetra  | Bemetra | Durg   | Balodabazar-Bhatapara |
| <b>Janpad</b>        | Arang   | Arang   | Arang   | Arang  | Arang  | Arang    | Dharsiwa | Dharsiwa        | Dharsiwa | Dharsiwa | Dharsiwa | Dharsiwa | Tilda    | Tilda  | Tilda  | Tilda                   | Tilda    | Berla   | Patan  | Simga                 |
| <b>RIPA</b>          | Nagpura | Badgaon | Chikhli | Nisda  | Seoni  | Khamaria | Kukera   | Dhaneli (Bhatt) | Raita    | Pathri   | Nijla    | Kapsada  | Tarashiv | Kohka  | Otegan | Bhursuda (Gujra gothan) | Chicholi | Pirda   | Sikola | Kirwai                |
| <b>RIPA Ref. No.</b> | 1       | 2       | 3       | 4      | 5      | 6        | 7        | 8               | 9        | 10       | 11       | 12       | 13       | 14     | 15     | 16                      | 17       | 18      | 19     | 20                    |

**Note: The above chart is indicative in nature and not exhaustive, amendments, if any, would be released through addendum/corrigendum, refer Clause 9.4 &16.0 of ITB of this tender document.**

**NOTES:**

1. The above estimated quantities for evaluation purpose only however payment will be made as per actual supply of the equipment/component as described in Annexure-I (A) of SCC (Name of Equipment/component) and according to Scope of Work attached herewith as Section-II, Annexure-A of SCC.
2. SOR rate shall include basic rate of material (taxes, if applicable, would be extra), including labour, transport, etc. is part of the Tender.
3. The total cost of material includes delivery of item as described in Column 2 (description) of above chart at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose, shall include all manpower, transportation costs, tools, tackles, installation, fitting, loading & unloading at Point of transfer of ownership, etc
4. Please refer to Scope of Work attached herewith as Section - II.
5. Item as described in Column 2 (description) of above chart shall be tested jointly by CBDA, Raipur, under guidance by BARC, Mumbai Scientists/Engineers, to their satisfaction, prior to processing payment.
6. Includes installation of Equipments mentioned in Sl. No. 01 to 16 in Column 1 above at site, its complete laying out and installation as per Layout Model Diagram provided in Annexure XII A to ITB, successful commissioning of those Equipments and Production of end product confirming to specification given in Annexure XIIB to ITB, all cost of manpower, transportation cost, tools, tackles, installation, fitting, loading & unloading at Point of transfer of ownership, etc.
7. Bidder can apply/quote for all 20 RIPA location(s) bearing RIPA code no.1 to 20, however, they will be eligible for maximum 05 Nisargruna Plants, based on Award of Work more meaningfully describes in Clause no. 13 & 20 of ITB.
8. Quoted rates shall include all applicable GST & other taxes, if any, as per Government notifications.
9. Includes any other equipment/activity required for successful installation and commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose as per industry specifications mentioned in Annexure-XII B to ITB. CBDA reserve the right to issue order of all 16 equipments/activity at a time or separately as per requirement.
10. Includes post commissioning, 3 (three) months successful running and comprehensive free on-site training of personnel by service/application engineer shall be at bidder's scope.
11. For Component/ Equipment mentioned in Sl. No. 34 of SoW, pg. no. 62, bidder has to mention capacity of DG set in KWh in Price bid schedule.

**ANNEXURE I OF PRICE PART**

SUMMARY OF BIDDER'S PRICE

(PRICE BID SCHEDULE)

NAME OF WORK: The Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose

|                     |  |                            |  |
|---------------------|--|----------------------------|--|
| <b>PT No.</b>       |  | <b>Bidder's Name</b>       |  |
| <b>PT Date</b>      |  | <b>Bid submission date</b> |  |
| <b>Closing Date</b> |  |                            |  |

Table: A - Price Bid

| Work/<br>Activity   | RURAL INDUSTRIAL PARK (RIPA)/GOTHAN LOCATIONS FOR COMMISSIONING OF BIOGAS DRIVEN POWER GENERATION PLANT BASED ON BARC TECHNOLOGY |         |         |         |        |        |          |          |                 |          |          |          |          |          |        |        |                         |          |         |        |                       |
|---|--|---------|---------|---------|--------|--------|----------|----------|-----------------|----------|----------|----------|----------|----------|--------|--------|-------------------------|----------|---------|--------|-----------------------|
|   | District   | Raipur  | Raipur  | Raipur  | Raipur | Raipur | Raipur   | Raipur   | Raipur          | Raipur   | Raipur   | Raipur   | Raipur   | Raipur   | Raipur | Raipur | Raipur                  | Bemetra  | Bemetra | Durg   | Balodabazar-Bhatapara |
|   | Janpad   | Arang   | Arang   | Arang   | Arang  | Arang  | Arang    | Dharsiwa | Dharsiwa        | Dharsiwa | Dharsiwa | Dharsiwa | Dharsiwa | Tilda    | Tilda  | Tilda  | Tilda                   | Tilda    | Berla   | Patan  | Singa                 |
|   | RIPA   | Nagpura | Badgaon | Chikhli | Nisda  | Seoni  | Khamaria | Kukera   | Dhaneli (Bhatt) | Raita    | Pathri   | Nijla    | Kapsada  | Tarashiv | Kohka  | Otegan | Bhursuda (Gujra gothan) | Chicholi | Pirda   | Sikola | Kirwai                |
|   | RIPA Code No.  | 1       | 2       | 3       | 4      | 5      | 6        | 7        | 8               | 9        | 10       | 11       | 12       | 13       | 14     | 15     | 16                      | 17       | 18      | 19     | 20                    |
| Supply, Installation & Commissioning of Biogas driven Power Generation Plant based on BARC 'NISARGRUNA' technology at different locations across Chhattisgarh preferably in Rural Industrial Parks for Research & Development purpose (refer Scope of Work Section-II, Annexure A of SCC) | Rate (Rs. in figure & words) incl. of GST for Item Sl. No. 1 to 33 as per SoW  |         |         |         |        |        |          |          |                 |          |          |          |          |          |        |        |                         |          |         |        |                       |
|   | Rate (Rs. in figure & word) incl. of GST for Item Sl. No. 34 as per SoW  |         |         |         |        |        |          |          |                 |          |          |          |          |          |        |        |                         |          |         |        |                       |

Please refer that 'Notes' above (pg.73 of 74) is an integral part of this price bid schedule. For SoW refer pg. no. 61-63 of this tender document.