

**Foundation for Innovative New Diagnostics India  
(FIND India)**

**Advertised Tender Enquiry (ATI)**

**BID DOCUMENT**

**FOR**

**SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF SILENT  
DIESEL GENERATOR (DG) SET COMPLYING WITH THE LATEST CPCB IV  
EMISSION NORMS ACROSS TB LABS UNDER THE NATIONAL  
TUBERCULOSIS ELIMINATION PROGRAMME (NTEP)**

**Bid Ref. No.: SAMS/FIND India/G/2023/0026/  
Proc./Equipment/ATE/27/2023 dt. 19/09/2023**



*(Procurement Agency)*

**STRATEGIC ALLIANCE**

**Management Services Pvt. Ltd.**

Strategic Alliance Management Services Pvt. Ltd,  
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Gautam Budh Nagar (U.P.)- 201301

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Website: [www.samsconsult.com](http://www.samsconsult.com)

# Checklist for bidders for submission in Proposal

(Bidders need to submit below filled and signed checklist mandatorily and provide all the required documents along with the technical proposal)

Sl. No.	Documents to be submitted along with Technical Proposal	Page No.	Remarks (If any)/ Yes/ No
<b>1</b>	<b>Documents required for Preliminary examination</b>		
i.	that the bid is signed, as per the requirements listed in the bidding documents;		
ii.	that the bid is signed by the authorized signatory		
iii.	the bid is valid for the period, specified in the bidding documents;		
iv.	that the bid is accompanied by due Bid Security;		
v.	that the bidder has submitted a manufacturer authorization form (in case of bidder is dealer/agent/ non-manufacturer)		
vi.	Bidder agreed to terms and conditions of bid including delivery period		
vii.	Bidder has agreed to give the required performance security as mentioned in the bid document		
viii.	Consortium or Joint Venture are not permitted for the bid submission as per basic eligibility specified under ITB para 5.		
<b>2</b>	<b>Documents required for Technical Evaluation</b>		
I	Letter of Technical Bid as per Form provided in <b>Section VI – Bidding Forms</b> ;		
li	Bidder Information Form as per Form provided in <b>Section VI: Bidding Forms</b> ;		
lii	Technical Compliance Sheet including product compliance certification from CPCB and compliance certification for alternator as per Form provided in <b>Section VI: Bidding Forms</b> ;		
lv	Documents establishing the compliance of Goods (like technical catalogue, brochures / product data sheet) in accordance with <b>ITB Para 16</b> ;		
V	Documents establishing bidders' qualification in accordance with <b>ITB Para 17.2</b> ;		
Vi	Proforma for Performance Statement (for a period of last three years) as per format given in <b>Section VI: Bidding Forms</b> along with supporting documents;		
vii	Bidder firm's Certificate of Incorporation/ Registration, Article and Memorandum of Association or any such registration document;		

## Letter of Technical Bid

*The Bidder must prepare the Letter of Technical Bid on its letterhead clearly showing the Bidder's complete name and address.*

***Note: All italicized text is for use in preparing these forms and shall be deleted from the final products.***

Date: **[insert date (as day, month and year) of Bid Submission]**

Bid Ref. No.: **[insert number of bidding process]**

To: **[insert complete name of Purchaser]**

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB 10);
- (b) We are agreeing to submit the Bid Security of the schedules quoted as mentioned in the bid document.
- (c) We meet the eligibility requirements and have no Conflict of Interest in accordance with ITB 4;
- (d) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: **[insert table giving brief description of the Goods, Equipment and Related Services]**;
- (e) Our bid shall be valid for a period fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, **we commit to obtain performance security (10% of the total contract amount) in accordance with the Bidding Documents.**
- (g) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 4.3(e), other than alternative bids submitted in accordance with ITB 13;
- (h) We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not debarred by any Procuring Entity under the State / UT Government, the Central Government, Autonomous body, Authority by whatever name called under them, UNOPS, UNDP, SAMS or GFATM as on the date of opening of bids;
- (i) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any activities which is in contravention of the Code of Integrity proscribed in ITB Para 3 of the Bidding Documents;
- (j) We hereby certify that we are neither associated nor has been associated directly or indirectly with the consultant or any other entity that has prepared the design, specifications and other documents for the subject matter of procurement or is being proposed as Project Manager for the contract;

- (k) We hereby certify that we have fulfilled our obligations to pay all such taxes as payable to the Central Government or the State Government or any local authority;
- (l) We hereby certify that we are not insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of the foregoing reasons;
- (m) We hereby certify that our directors and officers have not been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract within a period of three years preceding the commencement of the procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
- (n) We hereby certify that we are Class – I Local Suppliers as per the order Ref. No. P-45021/2/2017-PP (BE-II) dated 16 September, 2020 issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Govt. of India; (n) I/We hereby declare that we have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. I/We certify that our Organization \_\_\_\_\_ (add name and address of registered office of bidder / consortium partner, if any) is not from such a country, or if from such a country, has been registered with the Competent Authority and will not subcontract any work to a contractor from such countries unless such contractor is registered with the competent authority (wherever applicable, evidence of valid registration by the Competent Authority shall be attached). I/We hereby certify that our organization fulfils.
- (o) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

Name of the Bidder

\_\_\_\_\_

Name of the person duly authorized to sign  
the Bid on behalf of the Bidder

\_\_\_\_\_

Title of the person signing the Bid

\_\_\_\_\_

Signature of the person named above

\_\_\_\_\_

Date signed

\_\_\_\_\_

**Section I**

**NOTICE INVITING BIDS (NIB)**

**FOR**

**SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF SILENT DIESEL GENERATOR (DG) SET COMPLYING WITH THE LATEST CPCB IV EMISSION NORMS ACROSS TB LABS UNDER THE NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME (NTEP)**

**Bid Ref. No.: SAMS/FIND India/ G/2023/0008/0018/Proc./Equipment/ATE/20/2023**  
**Dt: 19/09/2023**

1. Strategic Alliance Management Services Pvt. Ltd. (SAMS) has been engaged by “Foundation for Innovative New Diagnostics India” (FIND India), New Delhi (a not-for-profit Company created under Section 8 (Indian) Companies Act, 2013) for providing procurement consultancy services for equipment, goods, works and services for TB Laboratories established across India under National Tuberculosis Elimination Programme (NTEP), Ministry of Health and Family Welfare, Govt. of India.
2. SAMS hereby invites **bids** from eligible and qualified bidders for the supply of Silent Diesel Generator (DG) Set along with related services:

Sch. No.	Name of Site	Description of Goods and Equipment	Quantity to be supplied (Nos.)
1	SPMC Bikaner	<b>Silent Diesel Generator (DG) Set</b> (Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about 125 KVA capacity complying with the latest CPCB IV emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter with two years of warranty period)	1
2	BHU Varanasi		1
3	RBIPMT, Delhi		1
4	RIMS Adilabad		1
5	SMC Vijayawada		1
6	IRL, Srinagar		1
7	IRL Dehradun		1
Total Quantity			7

3. Bidding will be conducted through the ‘Advertised Tender Enquiry’ method and procedures as set out in the ‘General Financial Rules – 2017’ and Manual for Procurement of Works (updated June, 2022) issued by the Department of Expenditure, Ministry of Finance, Govt. of India.
4. Bidders are required to submit Bid Security for the amount and form mentioned in the Bid Documents. Certain class of Bidders are exempted from submission of Bid Security. Please refer clause 19 in this regard. Details are given in Bidding Documents.
5. The Bid Document can be freely downloaded from the website [www.samsconsult.com](http://www.samsconsult.com) starting from **10.00 AM on 19/09/2023** Bidders shall be solely responsible for checking the above website for any amendment issued subsequent to publication of this NIB and take the same into consideration while preparing and submitting their bids.

6. Bidders' representatives are invited to attend an offline/in-person (physical) **pre-bid meeting at 11.00 AM on 26/09/2023** at the address mentioned above. Please note that non-attendance at the pre-bid meeting will not be the cause of the disqualification of bidders. Bidders can also participate in an online pre-bid meeting through skype link <https://join.skype.com/tGjZpdppnnke> at the scheduled time and date of pre-bid meeting. Bidders who are unable to attend the pre-bid meeting (online or offline) can send their written requests for clarification, if any up to **05.00 PM on 25/09/2023** at email [procurement@samsconsult.com](mailto:procurement@samsconsult.com).
7. **Bids must be submitted on or before 03:00 PM by 11/10/2023** by bidders at the office of Purchaser.
8. **The Technical Bids will be opened on the same day at 04.00 PM on 11/10/2023** in the presence of the bidders representatives, who choose to attend the technical bid opening meeting. Late bids will be rejected.

**Sanjay Rastogi**  
**Director, SAMS**

## Section-II

### Instructions to Bidders

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## **Section – II**

### **Instructions to Bidders**

#### **A. GENERAL**

##### **1. Introduction**

- 1.1 In connection with the Notice Inviting Bids (NIB) for Procurement of Goods, Equipment and related services as **specified in the Section III - Bid Data Sheet (BDS)**, the Purchaser **as specified in the BDS**, has issued these Bidding Documents for the supply of Goods, Equipment and related services **as specified in Section V - Schedule of Requirements**.
- 1.2 This Section provides the relevant information as well as instructions to assist prospective bidders in preparation and submission of bids. It also includes the mode and procedure to be adopted by the Purchaser for receipt and opening as well as scrutiny and evaluation of bids and subsequent placement of award of contract.
- 1.3 Before preparing the bid, and submitting the same to the Purchaser, the bidder should read and examine all the terms & conditions, instructions etc. contained in the Bidding Documents. Failure to provide required information or to comply with the instructions incorporated in this Bidding Documents may result in rejection of bids submitted by bidders.
- 1.4 The bidder shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its bid including preparation, mailing and submission of its bid and subsequently processing the same. The Purchaser shall, in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the bidding process.

##### **2. Language of Bids**

- 2.1 Bid submitted by the bidder and all subsequent correspondences and documents relating to the bid exchanged between the bidder and the Purchaser, shall be written in English language. However, the language of any printed literature furnished by the bidder in connection with its bid may be written in any other language, provided the same is accompanied by a self-certified English translation and, for purposes of interpretation of the bid, the English translation shall prevail.

##### **3. Code of Integrity**

- 3.1 The Purchaser and all officers or employees of the purchaser, whether involved in the procurement process or otherwise, or Bidders and their representatives or consultants or service providers participating in a procurement process or other persons involved, directly or indirectly in any way in a procurement process shall maintain an unimpeachable standard of integrity.
- 3.2 The Purchaser and Bidders to uphold the Code of Integrity, which prohibits officers or employees of the Purchaser or a person participating in a procurement process, in respect of the following:
  - (i) any offer, solicitation or acceptance of any bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process;

- (ii) any omission, including a misrepresentation that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- (iii) any collusion, bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
- (iv) improper use of information shared between the Purchaser and the bidders with an intent to gain unfair advantage in the procurement process or for personal gain;
- (v) any financial or business transactions between the bidder and any officer or employee of the Purchaser, who are directly or indirectly related to tender or execution process of contract;
- (vi) any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (vii) any obstruction of any investigation or audit of a procurement process;
- (viii) making false declaration or providing false information for participation in -
  - a) tender process or to secure a contract;
  - b) disclosure of Conflict of Interest;
  - c) disclosure by the bidder of any previous transgressions with any entity in India or any other country during the last three years or of any debarment by any other Procuring Entity.

3.3 In case of any breach of the Code of Integrity by a bidder or a prospective bidder, the Purchaser after giving a reasonable opportunity of being heard, may take appropriate measures including –

- a) exclusion of the bidder from the procurement process;
- b) calling off of pre-contract negotiations and forfeiture or encashment of bid security;
- c) forfeiture or encashment of any other security or bond relating to procurement;
- d) recovery of payments made by the Purchaser along with interest thereon at bank rate;
- e) cancellation of the relevant contract and recovery of compensation for loss incurred by the Purchaser;
- f) debarment of the bidder from participation in any future procurements of Purchaser for a period not exceeding three years.

## **4. Conflict of Interest**

4.1 Conflict of Interest for the Purchaser or its personnel and bidders is considered to be a situation in which a party has interests that could improperly influence that performance of its duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

- 4.2 Purchaser describes the situations in which a Purchaser or its personnel may be considered to be in Conflict of Interest include, but are not limited to the following -
- a) Conflict of Interest occurs when the private interests of Purchaser or its personnel, such as personal, non-official, extra- professional or other relationships or personal financial assets, interfere or appear to interfere with the proper performance of its professional functions or obligations as a procurement official;
  - b) within the procurement environment, a Conflict of Interest may arise in connection with such private interests as personal investments and assets, political or other social activities and affiliations while in the service of the Purchaser, employment after retirement from service or of relatives or the receipt of a gift that may place the Purchaser or its personnel in a position of obligation;
  - c) Conflict of Interest also includes the use of assets of the Purchaser including human, financial and material assets, or the use of the office of the Purchaser or knowledge gained from official functions for private gain or to prejudice the position of someone the Purchaser or its personnel does not favour;
  - d) Conflict of Interest may also arise in situations where the Purchaser or any of its personnel is seen to benefit directly or indirectly or allow a third party, including family, friends or someone they favour, to benefit directly or indirectly from the decision or action of the Purchaser;
- 4.3 The situations in which bidders participating in a procurement process or their representatives may be considered to be in Conflict of Interest include, but are not limited to the following –
- a) If they or their personnel or representatives or agents have any relationship or financial or business transactions or interests with any official of the Purchaser that are directly or indirectly involved in or related to the procurement process or execution of contract;
  - b) If they receive or have received any direct or indirect subsidy from any other bidder;
  - c) If they have the same legal representative for purposes of the bid;
  - d) If they have a relationship with each other, directly or through common third parties that puts them in a position to have access to information about or influence on the bid of another;
  - e) If they participate in more than one bid in the same bidding process;
  - f) If they have controlling partners in common;
  - g) If a bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the subject matter of procurement of the bidding process or were involved in such preparation in any way;
- 4.4 In the 'Letter of Technical Bid' to be submitted by the bidder, as per format given in **Section VI - Bidding Forms**, all bidders shall provide a signed statement that the bidder is neither associated nor has been associated directly or indirectly with the consultant or any other entity that has prepared the design, specifications and other documents for the subject matter of procurement or is being proposed as Project Manager for the contract;

- 4.5 In case of a holding company having more than one independently manufacturing unit or more than one unit having common business ownership or management, only one unit shall be allowed to submit bid or quote to prevent any Conflict of Interest. Similar restrictions shall apply to closely related sister or subsidiary companies. Such bidders must proactively declare such sister or subsidiary company or common business or management units in similar lines of business;
- 4.6 In cases of agents quoting in offshore procurements on behalf of their principal manufacturers, one agent shall not represent two manufacturers or quote on their behalf in a particular bid enquiry to prevent any Conflict of Interest.

## 5. Eligible Bidders and Goods

- 5.1 Bidder shall be a private entity, government-owned entity or, any combination of these having a formal intent and legal competency to enter into an agreement or contract and are registered under respective Act and Jurisdiction in India or any other country with which India has not banned trade relations.
- 5.2 Bidder should not have a Conflict of Interest as prescribed and specified in ITB Para 4, which materially affects fair competition.
- 5.3 In addition, any bidder participating in the procurement process shall –
- (i) have fulfilled his obligation to pay such of the tax payable to the Central Government or the State Government or any local authority;
  - (ii) not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of the foregoing reasons;
  - (iii) not have, and their directors and officers do not have, been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract within a period of three years preceding the commencement of the procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
  - (iv) not be debarred by any Procuring Entity under the State / UT Government, the Central Government, Autonomous body, Authority by whatever name called under them, UNOPS, UNDP, SAMS or GFATM as on the date of opening of bids.
- 5.4 All goods to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term “origin” used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.
- 5.5 In the ‘Letter of Technical Bid’ to be submitted by the bidder, as per format given in Section VI - Bidding Forms, all bidders shall provide a signed statement that the bidder fulfils the eligibility requirements given in ITB Para 5;
- 5.6 This invitation for bids is open for all Organizations (Proprietorship Firms, Partnership Firms, Limited Liability Partnership Firms, Companies registered under Companies Act, 1956 or Societies Act, Trusts, Societies registered under respective Act and Jurisdiction in India). **Consortium or Joint Venture are not permitted.**

## 6. Bidders' Qualification

- 6.1 Bidders should substantially meet the qualification criteria as stipulated in the **Section IV - Evaluation and Qualification Criteria**.
- 6.2 Bidders should fill and submit the "Proforma for Performance Statement (for a period of last five years)" provided in **Section VI - Bidding Forms** to provide relevant information and documents in support of fulfilment of bidder's qualification, along with its bid.

## B. BIDDING DOCUMENTS

### 7. Content of Bidding Documents

- 7.1 The Bidding Documents shall include the following Sections, which should be read in conjunction with any Amendment issued in accordance with ITB Para 10.
- Section I Notice Inviting Bids (NIB)
  - Section II Instructions to Bidders (ITB)
  - Section III Bid Data Sheet
  - Section IV Evaluation and Qualification Criteria
  - Section V Schedule of Requirements
  - Section VI Bidding Forms
  - Section VII General Conditions of Contract (GCC)
  - Section VIII Special Conditions of Contract (SCC)
  - Section IX Contract Forms
- 7.2 Unless downloaded directly from the Purchaser's website **as specified in the BDS**, Purchaser shall not be responsible for the correctness of the Bidding Documents, responses to requests for clarification, the Minutes of the Pre-bid meeting, if any, or Amendment(s) to the Bidding Documents in accordance with ITB Para 10.
- 7.3 Bidders are expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as is required by the Bidding Documents.

### 8. Clarifications of Bidding Documents

- 8.1 A Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address **specified in the BDS**. The Purchaser will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids as **specified in the BDS**.
- 8.2 The Purchaser shall also promptly publish brief description of the enquiry but without identifying its source and its response at its website as **specified in the BDS**.
- 8.3 Should the clarification result in changes to the essential elements of the Bidding Documents, the Purchaser shall amend the Bidding Documents following the procedure given under ITB Para 10.

## 9. Pre-Bid Meeting

- 9.1 In order to provide response to any doubt regarding Bidding Documents, or to clarify issues, a pre-bid meeting may be scheduled, **if specified in the BDS**.
- 9.2 During the pre-bid meeting, the clarification sought by representative of prospective bidders shall be responded appropriately. However, they shall be asked to submit their written request by close of business on the next working day. The Purchaser shall publish written response to such requests for clarifications, without identifying its source. In case required, amendment(s), in terms of ITB Para 10 below shall be issued, which shall be binding on all prospective bidders.

## 10. Amendments to Bid Documents

- 10.1 At any time prior to the deadline for submission of bids, the Purchaser may, pursuant to ITB Para 8 and 9 and for any reason deemed fit, amend or modify the Bidding Documents by issuing Amendment(s).
- 10.2 Such Amendment(s) will be published on Purchaser's website **as specified in the BDS** and the same shall be binding on all prospective Bidders.
- 10.3 In order to give reasonable time to prospective bidders to take necessary action in preparing their bids, the Purchaser may, at its discretion extend the deadline for the submission of bids and other allied time frames, which are linked with that deadline.
- 10.4 Any bidder who has downloaded the Bidding Documents should check the Amendment(s), if any, issued on the Purchaser's website. The Purchaser shall not be responsible in any manner if prospective Bidders miss any Amendment(s) published on Purchaser's website.

## C. PREPARATION OF BIDS

### 11. Documents Comprising the Bid

- 11.1 The bidder shall submit the bids (hard copies) in two envelopes one envelope containing the Technical Bid and the other the Price Bid. The Bid shall comprise the following:

#### **Technical Bid:**

- i) Letter of Technical Bid as per Form provided in **Section VI – Bidding Forms**;
- ii) Bid Security furnished in accordance with **ITB Para 19**;
- iii) Bidder Information Form as per Form provided in **Section VI: Bidding Forms**;
- iv) Technical Compliance Sheet as per Form provided in **Section VI: Bidding Forms**;
- v) Documents establishing the compliance of Goods in accordance with **ITB Para 16**;
- vi) Documents establishing bidders' qualification in accordance with **ITB Para 17.2**;
- vii) Manufacturer's Authorization, in case bid is submitted by an Agent, as per Form given in **Section VI: Bidding Forms**;
- viii) Proforma for Performance Statement (for a period of last three years) as per format given in **Section VI: Bidding Forms** along with supporting documents;

- ix) Proforma for other Details of Bidder, Manufacturer and its Bank as per format given in **Section VI: Bidding Forms**;
- x) Bidder firm's Certificate of Incorporation/ Registration, Article and Memorandum of Association or any such registration document;
- xi) Self-attested copy of GSTIN registration;
- xii) Any other document **as required in the BDS**

**Financial Bid:**

- i) Letter of Financial Bid as per Form provided in **Section VI – Bidding Forms**;
- ii) Price Schedule prepared in accordance with **ITB Para 14**;

## **12. Letter of Technical Bid, Financial Bid and Price Schedule**

- 12.1 The Letter of Technical Bid, Letter of Financial Bid and Price Schedule shall be prepared as per the Forms furnished in **Section VI: Bidding Forms**. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled-in with the information requested.

## **13. Alternative Bids**

- 13.1 Unless otherwise **specified in the BDS**, alternative bids shall not be considered.

## **14. Bid Prices**

- 14.1 The prices quoted by the Bidder in the Price Schedule shall conform to the requirements specified below.
- 14.2 Equipment thereunder must be listed and priced separately in the Price Schedule. The price quoted shall correspond to 100% of the items.
- 14.3 The price to be quoted in the 'Letter of Financial Bid' in accordance with ITB Para 12.1 shall be the total price of the bid.
- 14.4 The price quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and shall not be subject to variation on any account, **unless otherwise specified in the BDS**. The bid submitted with adjustable price quotation shall be treated as nonresponsive and shall be rejected.
- 14.5 The price shall be quoted as specified in the Form of Price Schedule given in **Section VI - Bidding Forms**. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. Prices shall be entered in the following manner:
  - (i) the unit and total price of the Goods on DDP (Delivered Duty Paid) – Consignee Location basis;
  - (ii) Goods and Services Tax (GST) payable on the Goods and related services if the contract is awarded.

## **15. Bid Currency**

- 15.1 The bidder should submit its quote in Indian Rupees only.
- 15.2 Bids, where prices are quoted in any other currency shall be treated as non-responsive and rejected.

## **16. Documents establishing the compliance in respect of Goods**

- 16.1 To establish the conformity of the Goods to the Bidding Documents, the Bidder shall furnish as part of its Bid, **Technical Compliance Sheet** as per Form provided in **Section VI: Bidding Forms** and the documentary evidence that the Goods conform to the technical specifications and standards specified in **Section V - Schedule of Requirements**.
- 16.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods, demonstrating substantial responsiveness of the Goods to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the **Section V - Schedule of Requirements**.
- 16.3 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section V - Schedule of Requirements.

## **17. Documents establishing the eligibility and Qualification of the Bidder**

- 17.1 To establish Bidder's their eligibility in accordance with ITB Para 5, Bidders shall complete the Letter of Technical Bid, included in **Section VI - Bidding Forms**.
- 17.2 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction that the Bidder meets each of the qualification criterion specified in **Section IV - Qualification and Evaluation Criteria**.

## **18. Period of validity of Bids**

- 18.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Purchaser in accordance with ITB Para 22.1. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid.



- 18.3 The Bidder who agrees to the extension of the period of validity of bids so requested by the Purchaser shall also extend the period of validity of bid securities submitted by them or submit new bid security to cover the extended period of validity of their bids. A bidder whose bid security is not extended or new bid securities not submitted shall be considered to have refused the request to extend the period of validity of its bids and rejected as non-responsive. The decision of the Purchaser will be final and binding in this regard.

## 19. Bid Security

- 19.1 Bidders shall furnish as part of their bid, a Bid Security/ Earnest Money Deposit (EMD) as per table given below for the quoted nos. of Schedules, in the form of FDR/ BG/ DD in the favour of Strategic Alliance Management Services Pvt. Ltd., payable at Noida. EMD can also be deposited online through RTGS as per details given below:

**Account Name: - Strategic Alliance Management Services Pvt. Ltd.**  
**Name of Bank : Kotak Mahindra Bank**  
**Account Name: Strategic Alliance Management Services Pvt Ltd.**  
**Account No. 9447736992**  
**IFSC : KKBK0000181**  
**Branch: Sector 18 Noida**

Seq. No.	Sch. Nos.	Description of Goods and Equipment	Total quantity to be supplied (Nos.)	EMD (In Rs.)
I	1	SPMC Bikaner	1	50,000
II	2	BHU Varanasi	1	55,000
III	3	RBIPMT, Delhi	1	60,000
IV	4	RIMS Adilabad	1	60,000
V	5	SMC Vijayawada	1	55,000
VI	6	IRL, Srinagar	1	55,000
VII	7	IRL Dehradun	1	55,000
<b>Total No. of DG Sets to be procured</b>			<b>7</b>	

- 19.2 For FDR/BG (pledged in the name of Strategic Alliance Management Services Pvt. Ltd., Noida) if opted for, originals should reach the SAMS office within 2 days of the submission deadline. Any delay by post or courier shall not be entertained.
- 19.3 The hard copy of EMD receipt (of any form) should be enclosed along with the hard copy of original bid.
- 19.4 Any bid not accompanied by Bid Security Amount as specified in ITB Para 19.1 above shall be rejected by the Purchaser as non-responsive.
- 19.5 No interest shall be payable by the Purchaser for the sum deposited as earnest money deposit.
- 19.6 The EMD of the unsuccessful bidders would be returned within one month of signing of the contract.
- 19.7 The EMD shall be forfeited by the Purchaser in the following events:

- (a) When the bidder withdraws or modifies its bid during the validity of bids as specified in the Letter of Bid; or
- (b) when the bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity, (i) fail or refuses to execute the Contract; or (ii) fail to furnish the Performance Security, if required in accordance with the Bid Documents.
- (c) If the bidder tries to influence the evaluation process.

19.8 The Micro and Small Enterprise (MSE) bidders, registered with MSME or those registered with NSIC or are registered with Central Purchase Organisation or the concerned Ministry or Department or Startups as recognised by Department of Industrial Policy & Promotion (DIPP) are exempted from submission of bid security. In such case, bidder should submit copy of MSME or National Small Industries Corporation (NSIC) registration and documents showing exemption from submission of bid security, in lieu of bid security.

## **20. Format and Signing of Bids**

20.1 The Bidder shall submit the bids as per the instruction mentioned in the BDS

20.2 The Technical Bid and original of the Financial Bid shall be typed or written in ink with all pages serially numbered and signed by the bidder or a person duly authorized to sign on behalf of the bidder in token of acceptance of the terms and conditions of the Bidding Documents. This authorization shall consist of a written confirmation **as specified in the BDS** which shall be attached to the Bid.

20.3 Any corrections in the bid such as interlineations, erasures, or overwriting shall be valid only if they are duly signed or initialled by the person signing the bid.

## **D. SUBMISSION AND OPENING OF BIDS**

### **21. Submission of Bids**

21.1 Bidders may submit their bids by post or by hand or drop in the box earmarked by the Purchaser. Bids so submitted shall enclose the original and each copy of the Technical Bid in separately sealed envelopes duly marked as "ORIGINAL" and "COPY" and original of Financial Bid duly marked as "ORIGINAL" in separately sealed envelope. The envelopes containing the original and the copies of Technical Bid and original of Financial Bid shall then be enclosed in one single sealed outer envelope.

21.2 The inner and outer envelopes shall bar the:

- a) name and complete address along with the mobile, telephone number and email address of the Bidder,
- b) complete postal address of the Purchaser,
- c) specific identification mark / Bid Ref. No. and subject matter of procurement,
- d) a warning 'not to open before the time and date for bid opening' as indicated in the Bidding Documents

- 21.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility about its consequences viz. misplacement or premature opening of the bid.

## **22. Deadline for Submission of Bids**

- 22.1 Bids must be submitted before the given deadline and no later than the date and time **specified in the BDS**.
- 22.2 The date of submission and opening of bids shall not be extended except when –
- a) Adequate number of bids have not been received within the given time and the Purchaser is of the opinion that further bids are likely to be submitted if time is extended; or
  - b) the Bidding Documents are required to be substantially modified because of discussions in pre-bid meeting or otherwise and the time for preparations of bids by the prospective bidders appears to be insufficient for which such extension is required.
- 22.3 In cases where the time and date of submission of bids is extended, an amendment to the Bidding Documents shall be issued in accordance with ITB Para 10, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline extended.
- 22.4 If the due date for submission of bids declared as non-working day, the bids shall be received and opened at the same time and hour on the next working day.

## **23. Late Bids**

- 23.1 Bidder will not be able to submit bids after closing of the deadline (date and time) for the submission of the bid as specified in the BDS.

## **24. Withdrawal, Substitution and Modification of Bids**

- 24.1 A bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by the bidder or his representative authorized in writing and such letter of authority shall be enclosed with the bid. The corresponding substitution or modification of the bid contained in sealed envelopes as required must accompany the written notice. Such written notice shall be –
- a) submitted in accordance with the Bidding Documents with the envelope clearly marked as “Withdrawal – Technical Bid / Financial Bid,” “Substitution – Technical Bid / Financial Bid,” or “Modification – Technical Bid/ Financial Bid” as applicable, and
  - b) received by the officer authorized to receive the bids prior to the last time and date fixed for receiving of bids.
- 24.2 Bids requested to be withdrawn shall be returned unopened to the bidders.
- 24.3 No bid shall be withdrawn, substituted, or modified after the time and date fixed for submission of bids as specified in the BDS.

## 25. Opening of Bids

- 25.1 The Purchaser will open all bids, in the presence of Bidders representatives who choose to attend, at the time, on the date, and at the place specified in the **Key Bidding information**. Bidders' representatives shall sign attendance sheet as proof of their attendance. The bidder who are not able to attend bid opening may choose to attend bid opening remotely using Skype call setup by SAMS.
- 25.2 The Technical Bid shall be opened at the first instance **at 04.00 PM on 11/10/2023**. During the Technical Bid opening, the Bid opening official(s) will read the salient features of the bids like Bid Security Declaration and any other special features of the bids, as deemed fit by the bid opening official(s).
- 25.3 The Purchaser will prepare minutes of the technical bid opening at the end of the opening session, including, as a minimum: the name of the Bidder, the presence or absence of a bid security etc. The minutes should be distributed to all Bidders who attended the meeting and will also be uploaded on Purchasers website.
- 25.4 After the technical evaluation of bids are completed, the Purchaser shall notify those Bidders whose Bids are found non-responsive at technical evaluation stage, their Financial Bids will not be opened.
- 25.5 The Purchaser shall simultaneously notify in writing those Bidders that have qualified during technical evaluation stage and inform them of the date, time and location for the opening of the Financial Bids. The opening date should allow the Bidders sufficient time to make arrangements for attending the opening. The Bidder's attendance at the opening of the Financial Bids is optional and is at the Bidder's choice.
- 25.6 The Financial Bids shall be opened by the Purchaser in the presence of the representatives of those Bidders found qualified during technical evaluation stage. These Financial Bids shall be then opened, and the total prices read aloud and recorded. Copies of the record shall be sent to all Bidders who submitted Bids.

## **E. EVALUATION AND COMPARISON OF BIDS**

### **26. Confidentiality**

- 26.1 Information relating to the evaluation of bids and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with the bidding process until information on Contract Award is communicated to all Bidders
- 26.2 Any effort by a Bidder to influence the Purchaser in the evaluation or contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB Para 26.2, from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it should do so in writing.

### **27. Preliminary Examination of Bids**

- 27.1 The Bid Evaluation Committee constituted by the Purchaser shall conduct a preliminary scrutiny of the opened bids at the beginning to assess the prima-facie responsiveness and record its findings thereof particularly in respect of the following:
  - (a) that the bid is signed, as per the requirements listed in the Bidding Documents;
  - (b) that the bid is signed by authorised signatory;
  - (c) the bid is valid for the period, specified in the Bidding Documents;
  - (d) that the bid is accompanied by due Bid Security;
  - (e) that the bidder has submitted manufacturer authorization form (in case of bidder is dealer/agent/non-manufacturer);
  - (f) Bidder agreed to terms and conditions of bid including delivery period;
  - (g) that the bid is unconditional, and that the bidder has agreed to give the required performance security;
  - (h) whether any other conditions specified in the Bidding Documents are fulfilled; and
  - (i) The Bidder is eligible to supply the goods required under this bid as per basic eligibility specified under ITB para 5 above.

### **28. Clarification of Bids**

- 28.1 To assist in the examination, evaluation, comparison and qualification of the bids, the Bid Evaluation Committee may, at its discretion, ask any bidder in writing for clarification by a specific date regarding its bid specifically therein that if the bidder does not comply or respond by that date his bid shall be liable to be rejected. The request of the Committee for clarification and the response of the bidder thereto shall be in writing. Depending on the outcome, such bids shall be ignored or considered further;
- 28.2 Any clarification submitted by a bidder with regard to his bid that is not in response to a request by the Committee specifically shall not be considered;
- 28.3 No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Committee in the evaluation of the financial bids.

- 28.4 No substantive change to qualification information or to a submission, including changes aimed at making an unqualified bidder, qualified or an unresponsive submission, responsive shall be sought, offered, or permitted under any circumstances.
- 28.5 All communication generated as above shall be included in the record of the procurement proceedings.

## **29. Immaterial Non-conformities in Bids**

- 29.1 The Bid Evaluation Committee may waive non-conformities in the bid that do not constitute a material deviation, reservation or omission and deem the bid to be responsive;
- 29.2 The Bid Evaluation Committee may request the bidder to submit necessary information or documents which are historical in nature like audited statements of accounts, GSTIN Registration Certificate, etc. within a reasonable period of time. Failure of the bidder to comply with the request within the given time shall result in the rejection of its bid;
- 29.3 The Bid Evaluation Committee may rectify immaterial non-conformities or omissions on the basis of the information or documentation received from the bidder under ITB Para 29.2.

## **30. Determination of Technical Responsiveness**

- 30.1 The Bid Evaluation Committee constituted by the Purchaser shall determine the responsiveness of a bid to the Bidding Documents based on the contents of the bid submitted by the Bidder;
- 30.2 A bid shall be deemed to be substantially responsive if it meets the requirements of the Bidding Documents without any material deviation, reservation, or omission where: -
- (a) "deviation" is a departure from the requirements specified in the Bidding Documents;
  - (b) "reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
  - (c) "omission" is the failure to submit part or all of the information or documentation required in the bidding documents.
- 30.3 A "material deviation, reservation, or omission" is one that,
- (a) If accepted, shall:-
    - (i) effect in any substantial way the scope, quality, or performance of the subject matter of procurement specified in the Bidding Documents; or
    - (ii) limit in any substantial way, inconsistent with the Bidding Documents, the rights of the Purchaser or the obligation of the Bidder under the proposed contract; or
  - (b) if rectified shall unfairly affect the competitive position of other Bidders presenting responsive bids;
- 30.4 The Bid Evaluation Committee shall examine the technical aspects of the bid in particular to confirm that all requirements of Bidding Documents have been met without any material deviation, reservation or omission;
- 30.5 The Bid Evaluation Committee shall regard a bid as responsive if it conforms to all requirements set out in the Bidding Documents, or contains minor deviations that do not materially alter or depart from the characteristics, terms, conditions and other requirements set out in the Bidding Documents, that

is, there is no material deviation, or if it contains errors or oversights that can be corrected without any change in the substance of the bid;

- 30.6 Bids that are not responsive or contain any material deviation shall be rejected. Bids declared as non-responsive shall be excluded from any further evaluation.

### **31. Nonconformities, Errors and Omissions**

- 31.1 Provided that a Bid is substantially responsive, the Bid Evaluation Committee may waive any nonconformities in the Bid.
- 31.2 Provided that a bid is substantially responsive, the Purchaser or authorised representative may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 31.3 Provided that a bid is substantially responsive, the Bid Evaluation Committee shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component.

### **32. Qualification of the Bidder**

- 32.1 The Purchaser shall determine to its satisfaction whether the Bidder meets the qualifying criteria **specified in Section IV - Evaluation and Qualification Criteria**
- 32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Para 17
- 32.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser/ Evaluation Committee shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.

### **33. Financial Evaluation and Comparison of Bids**

- 33.1 In order to evaluate Financial Bids, the Purchaser shall consider the following:
- (a) evaluation will be done for Items, as **specified in the BDS**; and the Bid Price as quoted in accordance with ITB Para 14.
  - (b) price adjustment for correction of arithmetic errors in accordance with ITB 34
  - (c) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 31
  - (d) the additional evaluation factors are specified in **Section IV: Evaluation and Qualification Criteria**
- 33.2 The Purchaser shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 33 to determine the lowest evaluated bid. The comparison shall be on the basis of DDP (place of final destination) prices, together with prices for any required installation, training, commissioning. The evaluation of a bid will exclude and not take into account IGST / SGST / CGST payable on the Goods and if the contract is awarded to the Bidder.

## **34. Correction of Arithmetical Errors**

- 34.1 Provided that the Bid is substantially responsive, the Bid Evaluation Committee shall correct arithmetical errors in the following cases, namely:
- (a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Committee there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected,
  - (b) if there is an error in a calculation of the total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected, and
  - (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
  - (d)
- 34.2 If the price bid is ambiguous leading to two equally valid total price amounts, the bid shall be treated as non-responsive and rejected.
- 34.3 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB Para 34.1, shall result in the rejection of the Bid.

## **35. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids**

- 35.1 The Purchaser reserves the right to accept or reject any bid, and to cancel / annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the Bidders for which the Purchaser shall keep record of clear and logical reasons properly for any such action / recall of bidding process. In case of cancellation / annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

# **F. AWARD OF CONTRACT**

## **36. Award Criteria**

- 36.1 The Purchaser shall award the Contract to the Bidder whose bid has been accepted after evaluation of bids.
- 36.2 The contract shall not be awarded to more than one bidder by splitting the quantity as given in Schedule of Requirements.



### **37. Purchaser's Right to vary Quantities at the time of Award as well as during the validity of the Contract**

- 37.1 At the time the Contract is awarded and till the validity of the contract, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section IV, Schedule of Requirements, provided this does not exceed the percentages **specified in the BDS**, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.

### **38. Notification of Award**

- 38.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Purchaser will pay the Supplier in consideration of the supply of Goods (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").
- 38.2 Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.
- 38.3 The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after notification of award in accordance with ITB Para 38.1, requests in writing the grounds on which its bid was not selected.

### **39. Performance Security**

- 39.1 Within twenty-eight (28) days of the receipt of Letter of Acceptance from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC, using the Performance Security Form included in **Section IX: Contract Forms**, or another Form acceptable to the Purchaser.
- 39.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.
- 39.3 The validity of the performance security shall be for a period of 45 days beyond the date of completion of all contractual obligations.

### **40. Signing of Contract**

- 40.1 Promptly after notification of Award, the Purchaser shall send the successful Bidder the Contract Agreement
- 40.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.

## Section III – Bid Data Sheet (BDS)

The following specific data for the goods and related services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB

ITB Para Reference	Particulars
	<b>A. General</b>
ITB 1.1	The reference number of the Notice Inviting Bids (NIB) is: <b>SAMS/FIND India/ G/2023/0008/0018/Proc./Equipment/ATE/20/2023</b> The Purchaser is: Strategic Alliance Management Services Pvt. Ltd, B-18, Sector-06, NOIDA Gautam Budh Nagar (U.P.)- 201301
ITB 7.2	<a href="http://www.samsconsult.com/FIND.aspx">http://www.samsconsult.com/FIND.aspx</a>
	<b>B. Bidding Documents</b>
ITB 8.1	The Purchaser's address for the purpose of any clarification is: Strategic Alliance Management Services Pvt. Ltd, B-18, Sector-06, NOIDA Gautam Budh Nagar (U.P.)- 201301 <i>E-mail: <a href="mailto:procurement@samsconsult.com">procurement@samsconsult.com</a></i> <i>Phone: 0120-4161355, 56, 57</i> Requests for clarification should be received by the Purchaser no later than: 05.00 PM 25/09/2023
ITB 8.2	<a href="http://www.samsconsult.com/FIND.aspx">http://www.samsconsult.com/FIND.aspx</a>
ITB 9.1	Pre-Bid Meeting shall be scheduled on hybrid mode (online & offline): <b>Yes</b> The name of contact person, venue, time and date for pre-bid meeting are specified as under: Name of contact person: <b>Mr. Dinesh Kumar, Sr. Manager (Procurement)</b> Contact Details: <b>Phone: 011- (Ext. 105), Mobile: 8800257774;</b> <b>e-mail: <a href="mailto:kumard@samsconsult.com">kumard@samsconsult.com</a>, <a href="mailto:procurement@samsconsult.com">procurement@samsconsult.com</a></b> Address of Venue: Strategic Alliance Management Services Pvt. Ltd, B-18, Sector-06, NOIDA Gautam Budh Nagar (U.P.)- 201301 Time and Date: <b>11.00 AM on 26/09/2023</b> The meeting shall be held online. Prospective bidder may use the link <a href="https://join.skype.com/tGjZpdppnnke">https://join.skype.com/tGjZpdppnnke</a>
ITB 10.2	<a href="http://www.samsconsult.com/FIND.aspx">http://www.samsconsult.com/FIND.aspx</a>
	<b>C. Preparation of Bids</b>
ITB 11.1 (xii)	The Bidder shall submit the following additional documents in its Bid: <b>None</b>
ITB 13.1	Alternative Bids <b>shall not be</b> considered.
ITB 14.4	The price quoted by the bidder shall be <b>fixed</b> during the Bidder's performance of the Contract and shall not be subject to variation on any account, <b>except for GST, payable on Goods and related services.</b>
ITB 18.1	The bid validity period shall be <b>120 days after the deadline for bid submission.</b>
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall consist of:

	(1) Copy of Resolution of Board of Directors (2) Authorization Letter issued by Competent authorized on bidder firms letter head / official stationary (3) Notarized affidavit
	<b>D. Submission and Opening of Bids</b>
ITB 22.1	Purchaser's address for bid submission is: <b><i>Strategic Alliance Management Services Pvt. Limited (SAMS), B-18, Sector-6, Noida, G.B. Nagar, Uttar Pradesh – 201031.</i></b>  The deadline for Bid Submission is: <b>03.00 PM on 11/10/2023.</b>
ITB 25.1	The bid opening shall take place at <b><i>Strategic Alliance Management Services Pvt. Limited (SAMS), B01-B03, Vardhman Diamond Plaza, Community Centre, D.B. Gupta Road, Paharganj, New Delhi – 110055</i></b>  The date and time for Bid opening is: <b>04.00 PM on 11/10/2023.</b>
	<b>E. Evaluation and Comparison of Bids</b>
ITB 37.1	The maximum percentage by which quantities may vary is: <b><i>±25% (Twenty Five percent)</i></b>

## **Section IV – Evaluation and Qualification Criteria**

This Section contains all the criteria that the Purchaser shall use to evaluate a bid and qualify the Bidders in accordance with ITB 30 and 32 no other factors, methods or criteria shall be used.

### **1. Evaluation (ITB 32)**

#### **1.1. Evaluation Criteria {ITB 33.1 (e)}**

The Purchaser shall use the criteria and methodologies listed in this Section to evaluate Bids. By applying the criteria and methodologies the Purchaser shall determine the Most Advantageous Bid. This is the Bid that meets the Qualification Criteria and has been determined to be:

- a) substantially responsive to the bidding document, and
- b) the lowest evaluated cost. with applicable warranty as specified in the section V SCHEDULE OF REQUIREMENT; Technical Specification

The determination of bidder quoting lowest evaluated cost shall be based on the comparison of evaluated bid price carried out on “Delivered Duty Paid (DDP) consignee site basis”,

### **2. Qualification of the Bidder (ITB 32)**

#### **2.1 Qualification Requirements (ITB 32.1)**

**After preliminary scrutiny of bids in accordance with ITB Para 27 above, Bidder’s shall be assessed for their qualification for the Schedules quoted by them as per criteria given below:**

The Purchaser shall carry out the qualification assessment of the Bidder in accordance with ITB 32, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder’s qualifications.

#### **a) If the Bidder is a manufacturer:**

##### **i) Experience and Technical Capacity**

- a) Bidder should be in continuous business of manufacturing / supplying the similar Goods as specified in the bid during last five years prior to bid opening and should have manufactured and supplied the similar Goods<sup>1</sup> during last five years preceding the date of opening of bids. If a bidder quote for only one schedule, the bidder will submit the copy of one purchase order supplied in last three years. In case of submitting proposal for more than one schedule, then the Bidder should have manufacturer/supply at least 60% of the required quantity (round off to the nearest zero).

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<sup>1</sup> similar goods means DG Set more than 60 KVA.

- b) To qualify for **each Schedule**, the bidder, should have achieved an average annual turnover during last three financial years or latest (i.e. 2020-21, 2021-22 and 2022-23) as per table below:

Seq. No.	Sch. Nos.	Description of Goods and Equipment	Total quantity to be supplied (Nos.)	Average Annual Turnover requirement over last five financial years or latest (2020-21, 2021-22 and 2022-23)
I	1	SPMC Bikaner	1	16,00,000
II	2	BHU Varanasi	1	16,50,000
III	3	RBIPMT, Delhi	1	19,00,000
IV	4	RIMS Adilabad	1	19,00,000
V	5	SMC Vijayawada	1	17,00,000
VI	6	IRL, Srinagar	1	17,50,000
VII	7	IRL Dehradun	1	17,00,000
<b>Total No. of DG Sets to be procured</b>			<b>7</b>	

In case, the Bidder quotes for more than one Schedule, the Average Annual Turnover will be cumulative i.e. the sum of turnover required for multiple no. of Schedules quoted.

## ii) Documentary Evidence

The Bidder shall furnish the following documentary evidence to demonstrate that it fulfills the experience and technical capacity, as above:

- a) Details of past experience in support of qualification requirement given in para 2(I) a).i).a), including past performance of the Goods offered and on those of similar nature within the past five years, details of current contracts in hand and other commitments (as per form given in **Section VI, Bidding Forms- Performance Statement Form**).
- b) Furnish at least 2 or more documentary evidence (**Client's certificate**) in support of the satisfactory execution including timely supply by the Bidder during last five years. Purchaser may seek feedback from Clients on satisfactory supply of the goods supplied to them. In case, Purchaser gets two or more adverse feedback from existing end users, bids of those bidders will not be consider for further evaluation. In addition, the Purchaser may take technical feedback from Govt. facilities for the use of particular goods offered by the bidder.

## b) If Bidder is not manufacturer:

### i) Experience and Technical Capacity

- a) If a Bidder is not a manufacturer but is offering the Goods on behalf of the Manufacturer under Manufacturer's Authorization Form (Section VI, Bidding Forms), the Bidder shall demonstrate that it has supplied the similar Goods<sup>2</sup> during last three years preceding the date of opening of bids. If a bidder quote for only one schedule, the bidder will submit the copy of one purchase order supplied in last five years. In case of submitting proposal for more than one schedule, then the Bidder should have supplied at least 40% of the required quantity (round off to the nearest zero).

<sup>2</sup> similar goods means DG Set more than 60 KVA.

- b) To qualify for **each Schedule**, the bidder, should have achieved an average annual turnover during last three financial years or latest (i.e. 2020-21, 2021-22 and 2022-23) as per table below:

Seq. No.	Sch. Nos.	Description of Goods and Equipment	Total quantity to be supplied (Nos.)	Average Annual Turnover requirement over last five financial years or latest (2020-21, 2021-22 and 2022-23)
I	1	SPMC Bikaner	1	16,00,000
II	2	BHU Varanasi	1	16,50,000
III	3	RBIPMT, Delhi	1	19,00,000
IV	4	RIMS Adilabad	1	19,00,000
V	5	SMC Vijayawada	1	17,00,000
VI	6	IRL, Srinagar	1	17,50,000
VII	7	IRL Dehradun	1	17,00,000
<b>Total No. of DG Sets to be procured</b>			<b>7</b>	

In case, the Bidder quotes for more than one Schedule, the Average Annual Turnover will be cumulative i.e. the sum of turnover required for multiple no. of Schedules quoted.

## ii) Documentary Evidence

The Bidder shall furnish the following documentary evidence to demonstrate that it fulfills the experience and technical capacity, as above:

- Details of past experience **of Bidder firm** in support of qualification requirement given in para b).i).b) (applicable for its manufacturer);
- Details of past experience **of manufacturer** in support of qualification requirement given in para b).i). a) (applicable for bidder); including past performance of the Goods offered and on those of similar nature within the past five years, details of current contracts in hand and other commitments (as per form given in **Section VI, Bidding Forms- Performance Statement Form**).
- Furnish at least 2 or more documentary evidence (**Client's certificate**) in support of the satisfactory execution including timely supply by the Bidder during last five years. Purchaser may seek feedback from Clients on satisfactory supply of the goods supplied to them. In case, Purchaser gets two or more adverse feedback from existing end users, bids of those bidders will not be consider for further evaluation. In addition, the Purchaser may take technical feedback from Govt. facilities for the use of particular goods offered by the bidder.
- .

## c) Technical demonstration of Goods / Equipment offered:

- Prior to contract award, the lowest evaluated substantially responsive Bidder may be requested to organize demonstration of the goods/ equipment quoted, for inspection of quality and its efficient operation and demonstration of performance parameters before Purchaser or its authorized team. In case, the goods does not perform satisfactorily and does not pass quality / performance test, the bid would be deemed to be non-responsive and Purchaser reserves the right to move to next lowest evaluated responsive bidder for such a technical demonstration of goods.

- ii) the bidder shall arrange for demonstration of offered goods at desired location intimated later by Purchaser, at own cost, either directly or through authorized Dealer /Distributors, as the case may be, for verification by the Purchaser, whether the goods offered meets the accuracy and other quality parameters as indicated in Technical Specifications at Section IV. The bidder should be prepared to do so by keeping one sample unit of the quoted goods ready at its disposal.

## Section V – Schedule of Requirements

### A. List of Goods and Equipment required:

Seq. No.	Sch. Nos.	Name of Sites	Total quantity to be supplied (Nos.)
I	1	SPMC Bikaner	1
II	2	BHU Varanasi	1
III	3	RBIPMT, Delhi	1
IV	4	RIMS Adilabad	1
V	5	SMC Vijayawada	1
VI	6	IRL, Srinagar	1
VII	7	IRL Dehradun	1
<b>Total No. of DG Sets to be procured</b>			<b>7</b>

#### **Important Note:**

Bidders can submit bid for any one or more or all, Schedules based on their technical capability and qualification criteria specified in the ITB.

### B. List of Related Services:

Sch. No.	Name of Site	Description of Goods and Equipment	Total Quantity (Nos.)	AMC after expiry of 2 years warranty period			
				Type of Service	Year	Year	Year
1	SPMC Bikaner	Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about <b>125 KVA</b> capacity complying with the <b>latest CPCB IV</b> emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter	1	AMC	Year – 3	Year - 4	Year – 5
2	BHU Varanasi		1	AMC	Year – 3	Year - 4	Year – 5
3	RBIPMT, Delhi		1	AMC	Year – 3	Year - 4	Year – 5
4	RIMS Adilabad		1	AMC	Year – 3	Year - 4	Year – 5
5	SMC Vijayawada		1	AMC	Year – 3	Year - 4	Year – 5
6	IRL Srinagar		1	AMC	Year – 3	Year - 4	Year – 5
7	IRL Dehradun		1	AMC	Year – 3	Year - 4	Year – 5



**C. Consignee-wise Quantity Distribution of Silent DG Set and detailed addresses of consignees:**

**a) Consignee-wise Quantity Distribution of Silent DG Set**

Sch. No.	State	Site Details
1	Rajasthan	SPMC Bikaner
2	Uttar Pradesh	BHU Varanasi
3	Delhi	RBIPMT, Delhi
4	Telangana	RIMS Adilabad
5	Andhra Pradesh	SMC Vijayawada
6	J&K	IRL Srinagar
7	Uttarakhand	IRL Dehradun

**b) Detailed addresses of consignees:**

Sl. No.	Consignee Name	Address	Pin Code	Contact Name	Designation	Email-Id	Phone No
1	S.P Medical college & Associated Group of Hospitals, Bikaner	S.P Medical college & Associated Group of Hospitals, Bikaner	334003	Dr BR Bishnoi	lab incharge	<a href="mailto:drb.29e@gmail.com">drb.29e@gmail.com</a>	9413684655
2	Varanasi, UP	Department Of Microbiology, Institute of Medical Sciences, Banaras Hindu University	221005	Prof. Shampa Anupurba	HOD microbiology	<a href="mailto:irlupvm@rntcp.org">irlupvm@rntcp.org</a>	9415396353
3	Rajan Babu Institute of Pulmonary Medicine & Tuberculosis (RBIPMT)	Rajan Babu Institute of Pulmonary Medicine & Tuberculosis (RBIPMT), G.T.B. Nagar, Kingsway camp, Delhi	110009	Dr Vasim Ahmad	Microbiologist	<a href="mailto:cdstlab.rbipmt@gmail.com">cdstlab.rbipmt@gmail.com</a>	9911231685
4	Rajiv Gandhi Institute of Medical Sciences (RGIMS) Adilabad	Department of Microbiology, IP Block, Rajiv Gandhi Institute of Medical Sciences (RGIMS) Adilabad, Telangana	504001	Dr Pramod	Microbiologist	<a href="mailto:Microbiologyrimsadb@gmail.com">Microbiologyrimsadb@gmail.com</a>	8500818181
5	Siddhartha Medical College, Gunadala, Vijayawada	Department of Microbiology, Siddhartha Medical College, Gunadala, Vijayawada, A.P.	520002	Dr K Shrikant	Microbiologist	<a href="mailto:Cdstapvja@gmail.com">Cdstapvja@gmail.com</a>	9742497779
6	State TB Training and Demonstration Center	State TB Training and Demonstration Center, Delegate, Chest Disease Hospital Campus,	190001	Mr. Zafar Naushad	Microbiologist	<a href="mailto:irljksgr@rntcp.org">irljksgr@rntcp.org</a>	9796367708
7	State TB Demonstration and Training Centre	State TB Demonstration and Training Centre, Tyagi Road 107, Chander Nagar, In front of State Nursing College	248001	Dr Prashant Choudhury	Microbiologist	<a href="mailto:irlurddn@rntcp.org">irlurddn@rntcp.org</a>	9012342359

**D. Delivery & Completion Schedule**

The delivery shall be made within **120 days** from the date of issue of the Notification of Award (NOA).

# Technical Specifications

## Diesel Generator (DG) set specifications.

**Scope of work:** Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about **125 KVA** capacity complying with the **latest CPCB IV** emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.

D.G Set shall comprise of: -

### **a) Engine: -**

Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions. The diesel engine model shall be tested & certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944 .

The engine shall be complete with standard accessories, spares and tools as detailed below: -

- i. Radiator with fan
- ii. Exhaust gas turbocharger
- iii. Residential type silencer with required length of exhaust pipe
- iv. Air cleaner
- v. Fuel lift pump
- vi. Lube oil filter
- vii. Fuel filter
- viii. Heavy Duty dynamically balanced flywheel
- ix. Electronic governor
- x. Starter with suitable capacity battery
- xi. Battery charging unit of suitable capacity for equipment
- xii. Microprocessor based DG set control panel:
  - o consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.
  - o Alarms & indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.

### **b) Alternator: -**

The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be “H” for temperature rise

consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.

**c) Base Frame & Mounting Arrangement: -**

The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator.

**d) Battery: -**

Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.

**e) Fuel Tank: -**

Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.

Fuel consumption:  $\frac{1}{4}$ th of the total KVA rating or better on 100 % (full) load.

**f) Exhaust Piping: -**

The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).

**g) Acoustic Enclosure:**

The enclosure must be as per the latest CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.

The Acoustic enclosure should be incorporated following:

- (i) The base plate fabricated with sheet metal of suitable thickness.
- (ii) The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.
- (iii) The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.
- (iv) The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.
- (v) The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.
- (vi) The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.
- (vii) The enclosure shall be complete with:
  - Arrangement for power cable connection for load and mains supply
  - Integral- Residential Exhaust Silencer
  - Suction Louvers
  - Discharge Louvers
  - Open able & lockable doors with airtight, high quality rubber gasket
  - Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size &Lifting arrangement
  - The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.

#### **h) Installation of D.G. Set: -**

R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design.

**Erection of D.G. set:** The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trial, transportation and unloading of DG set.

#### **Automatic Main Failure (AMF) control Panel with bypass / change over switch**

Automatic start of 60 KVA/125 KVA/160 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel

shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory.

The panel shall be complete with the following:

- i. Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.
- ii. Contactor of suitable rating.
- iii. Neutral isolation contactor of suitable relays.
- iv. Set of control fuses and auxiliary relays.
- v. Set of tinned Copper busbars of suitable rating.
- vi. Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.
- vii. Engine on-off (push button type).
- viii. Microprocessor based AMF logic controller with following features:
  - (1) 3 Phase sensing of mains failure
  - (2) Impulse start of DG Set
  - (3) Off/Manual/Auto/Test selector switch
  - (4) Sensing of mains voltage presence
  - (5) Engine idling/cooling
  - (6) Mains metering on one common screen (three phase) by providing load manager
  - (7) Digital Voltmeter
  - (8) Digital Ammeter
  - (9) Digital Frequency
  - (10) Digital KW meter
  - (11) Digital Power Factor meter
  - (12) Digital KWh meter
- ix. All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines.

#### **Indications/alarm**

- Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.
- Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.
- Common alarm for engine failure
- Set of Red Yellow Blue (RYB) indicating lamps for generator supply

The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.

However, the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and

bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.

### **Earthing:**

suitable earthing arrangement will be provided. Four number of earths sets for DG set as below:

- GI Plate earthing (2 sets) body earthing
- Copper earthing (2 sets) neutral earthing

Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories.

### **Documentation:**

- 1 set of following documents shall be provided with each set: -
  - Test Certificate of diesel engine.
  - Test certificate of Alternator.
  - Test Certificate of D.G. Set.
- One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.
- The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.

### **Painting:**

All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.

### **Training:**

Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.

### **Warranty:**

- All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of **two years** from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site.

-Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.

- First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.
- Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.
- Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.
- Service call to be attended as and when required within 24 -48 hrs. of time.

- Any additional service visit as per manufacturer standards or recommendation.

**Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):**

**I. Mechanical work (monthly basis):**

- a. Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.
- b. Checking and adjusting fan belt tensions. Changing of the same if required.
- c. Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.
- d. Checking for conditioning of coolant level and refill if required.
- e. Checking for conditioning of lube oil level and refill if required.
- f. Carrying out valve tappet setting as and when required.
- g. Checking of mounting bolts and replace if required.
- h. Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.
- i. Checking of turbo charger and accessory drive whenever required
- j. Checking the alignment of engine and alternator.
- k. Checking of proper functioning of instrument panel and AMF panel.
- l. Greasing of alternator bearing as per manufacturer recommendation.
- m. Fuel system
  - Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.
  - Any leakage from the fuel line system to be repaired.
- n. Exhaust system
  - Checking and maintenance of exhaust silence and exhaust stack etc.
  - Any smoke leakage from the exhaust system to be repaired.
  - Checking of insulation of exhaust piping.
- o. Carry out any other periodic maintenance check as per OEM checklist.

**II. Electrical work (monthly basis):**

- a. Checking and fault finding associated with the electrical systems of the engine.
- b. General cleaning of alternator of the DG set.
- c. Cleaning of battery terminals & de-sulphation and checking its functionality.
- d. Checking of wiring system for any loose and resolving it.
- e. Maintenance for smooth functioning of different parameters in generator engine and AMF panel.
- f. Diagnosis of various electrical faults and rectification at site.
- g. Fault rectification of AMF panel along with accessories.
- h. Maintenance of earth resistance and measuring of earth resistance on quarterly basis.

**III. A proper Logbook for Service Record must be maintained.**

**IV. Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.**

Location of DG set and AMF panel of all the seven sites are mentioned below:

## **1. SPMC Bikaner**

Location for DG Set (at Ground Floor)





**Location for AMF Panel (at First floor):**



## **2. Varanasi site**

**Location of DG set (Ground Floor)**



**Location of AMF panel (at Ground floor near to the existing distribution panel & servo stabilizer):**



### **3. RBIPMT, Delhi**

**Location of DG set (Ground Floor)**



**Location of AMF panel (at Ground floor near to the proposed DG set area)**



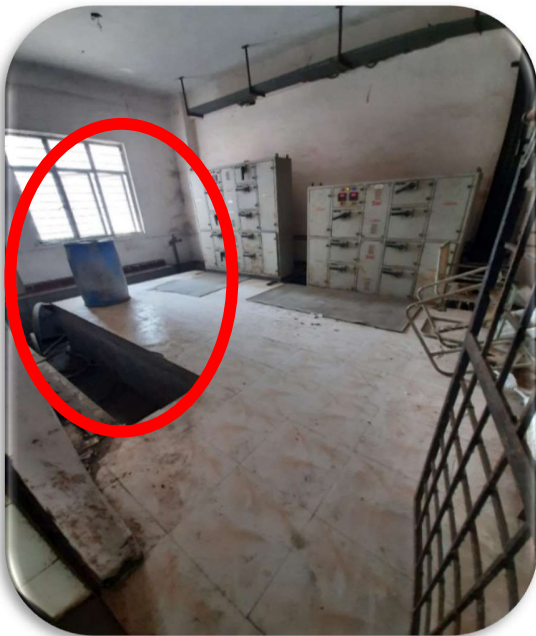


## **4. RIMS, Adilabad**

**Location of DG set (Ground Floor, Open space near to old TB Ward)**



**Location of AMF panel (at Ground floor near to the existing LT panel):**



**Existing Cable distribution at RIMS Adilabad**



**Note:** Extra civil work required for the removal and fixing of these slabs.

## 5. SMC Vijayawada:

Location of DG set (Ground Floor, Open space)



**Location of AMF panel (at Ground floor near to the existing distribution LT panel):**



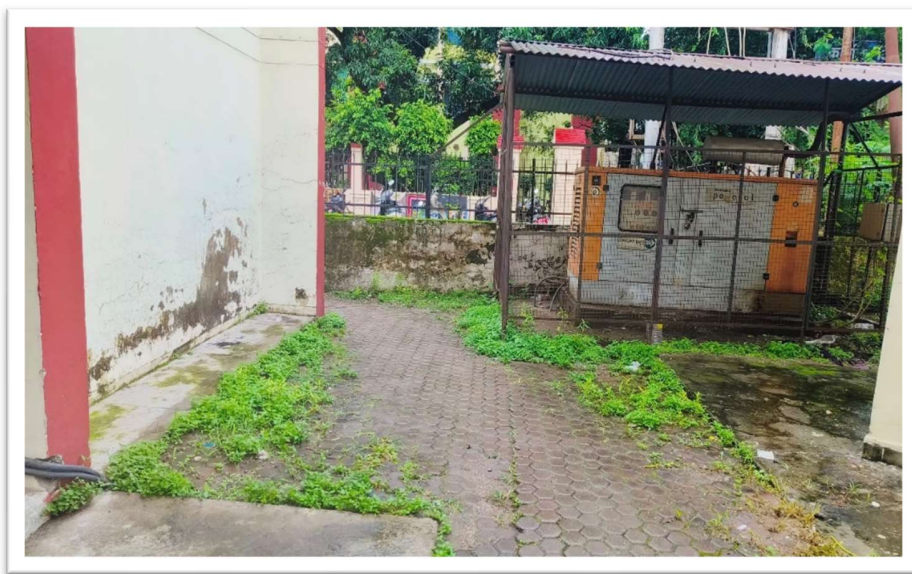


## 6. IRL, Srinagar:

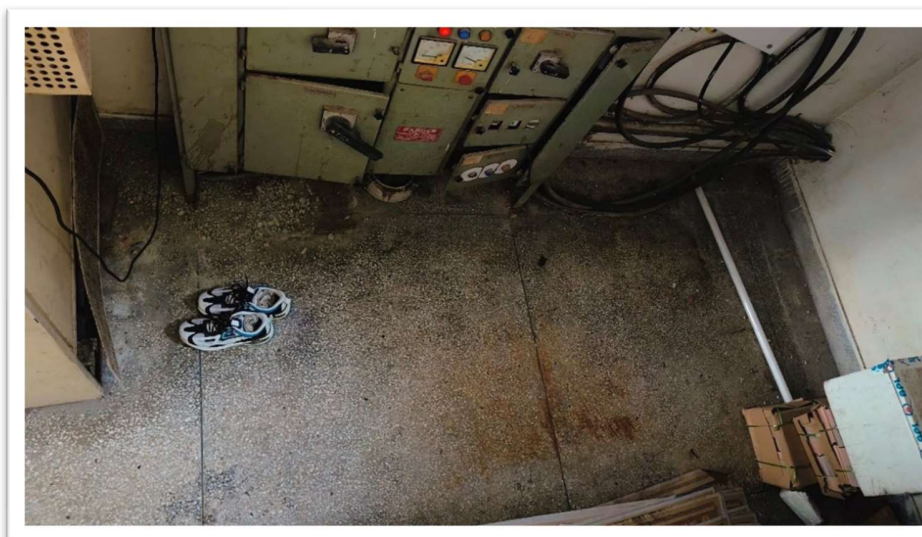
Pictures of the site will be provided during the pre-bid meeting or before the closing date of tender.

## 7. IRL Dehradun

Location of DG set (Ground Floor, in place of existing DG set):



Location of AMF panel:





## Section VI – Bidding Forms

### Bidder Information Form

*[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[insert date (as day, month and year) of Bid Submission]*

Bid Ref. No.: *[insert number of bidding process]*

1. Bidder's Name <i>[insert Bidder's legal name]</i>
2. Bidder's year of registration: <i>[insert Bidder's year of registration]</i>
3. Bidder's Address: <i>[insert Bidder's legal address]</i>
4. Bidder's Authorized Representative Information  Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
5. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i>  <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.3. <input type="checkbox"/> Organizational chart, a list of Board of Directors, and the beneficial ownership. <input type="checkbox"/> GSTIN Registration Certificate <input type="checkbox"/> Any other document

## Technical Specification Compliance

Bidders must complete the table below.

### Sch. 1 SPMC Bikaner - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
	<b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about 125 KVA capacity complying with the latest CPCB IV emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.	
	D.G Set shall comprise of: -	
a)	<b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions. The diesel engine model shall be tested & certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944.The engine shall be complete with standard accessories, spares and tools as detailed below: -	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel:	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<b>Alternator:</b> - The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be “H” for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.	
c)	<b>Base Frame &amp; Mounting Arrangement: -</b> The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: ¼th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be as per the latest CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	- Integral- Residential Exhaust Silencer	
	- Suction Louvers	
	- Discharge Louvers	
	- Open able & lockable doors with airtight, high quality rubber gasket	
	- Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	-The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trail, transportation and unloading of DG set.	
	<b>Automatic Main Failure (AMF) control Panel with bypass / change over switch</b> Automatic start of 125 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory.	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactors of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	
viii	Microprocessor based AMF logic controller with following features:	
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6) Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	However, the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b>Earthing:</b> suitable earthing arrangement will be provided. Four number of earths sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories	
	<b>Documentation:</b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>○ Test Certificate of diesel engine.</li> <li>○ Test certificate of Alternator.</li> <li>○ Test Certificate of D.G. Set</li> </ul>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	
	<b><u>Painting:</u></b> All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b><u>Training:</u></b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b><u>Warranty:</u></b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site.  Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	
k	Checking of proper functioning of instrument panel and AMF panel.	
l	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
o	Carry out any other periodic maintenance check as per OEM checklist.	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintaince for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

## Sch. 2 BHU Varanasi - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
	<b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about 125 KVA capacity complying with the latest CPCB IV emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.	
	D.G Set shall comprise of: -	
a)	<b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions.. The diesel engine model shall be tested & certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944. The engine shall be complete with standard accessories, spares and tools as detailed below: -	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel:	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<b>Alternator:</b> - The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be "H" for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.	
c)	<b>Base Frame &amp; Mounting Arrangement:</b> -	



Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: 1/4th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be as per the latest CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	- Integral- Residential Exhaust Silencer	
	- Suction Louvers	
	- Discharge Louvers	
	- Open able & lockable doors with airtight, high quality rubber gasket	
	- Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	- The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trail, transportation and unloading of DG set.	
	<b><u>Automatic Main Failure (AMF) control Panel with bypass / change over switch</u></b> Automatic start of 60 KVA/125 KVA/160 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory.	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactor of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
viii	Microprocessor based AMF logic controller with following features:	
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6) Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	However, the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b>Earthing:</b> suitable earthing arrangement will be provided. Four number of earths sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories	
	<b>Documentation:</b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>o Test Certificate of diesel engine.</li> <li>o Test certificate of Alternator.</li> <li>o Test Certificate of D.G. Set</li> </ul>	
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<b><u>Painting:</u></b> All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b><u>Training:</u></b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b><u>Warranty:</u></b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site.  Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
k	Checking of proper functioning of instrument panel and AMF panel.	
l	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
o	Carry out any other periodic maintenance check as per OEM checklist.	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintainance for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

### Sch. 3 RBIPMT, Delhi - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about 125 KVA capacity complying with the latest CPCB IV emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.	
	D.G Set shall comprise of: -	
a)	<b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions. The diesel engine model shall be tested & certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944. The engine shall be complete with standard accessories, spares and tools as detailed below: -	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel:	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<b>Alternator:</b> - The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be "H" for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.	
c)	<b>Base Frame &amp; Mounting Arrangement:</b> - The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: 1/4th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be as per the latest CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	- Integral- Residential Exhaust Silencer	
	- Suction Louvers	
	- Discharge Louvers	
	- Open able & lockable doors with airtight, high quality rubber gasket	
	- Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	- The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trail, transportation and unloading of DG set.	
	<b><u>Automatic Main Failure (AMF) control Panel with bypass / change over switch</u></b> Automatic start of 125 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory.	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactor of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	
viii	Microprocessor based AMF logic controller with following features:	



Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6) Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	However, the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b><u>Earthing:</u></b> suitable earthing arrangement will be provided. Four number of earths sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories	
	<b><u>Documentation:</u></b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>o Test Certificate of diesel engine.</li> <li>o Test certificate of Alternator.</li> <li>o Test Certificate of D.G. Set</li> </ul>	
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<b><u>Painting:</u></b> All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b><u>Training:</u></b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b><u>Warranty:</u></b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site.  Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	
k	Checking of proper functioning of instrument panel and AMF panel.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
I	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
o	Carry out any other periodic maintenance check as per OEM checklist.	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintaince for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

### Sch. 4 RIMS Adilabad - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<p><b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about <b>125 KVA</b> capacity complying with the <b>latest CPCB IV</b> emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.</p> <p>D.G Set shall comprise of: -</p>	
a)	<p><b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions. The diesel engine model shall be tested &amp; certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944. The engine shall be complete with standard accessories, spares and tools as detailed below: -</p>	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<p><b>Alternator:</b> -</p> <p>The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be “H” for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.</p>	
c)	<p><b>Base Frame &amp; Mounting Arrangement:</b> -</p> <p>The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units</p>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator.	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: 1/4th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	Integral- Residential Exhaust Silencer	
	Suction Louvers	
	Discharge Louvers	
	Open able & lockable doors with airtight, high quality rubber gasket	
	Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trail, transportation and unloading of DG set.	
	<b><u>Automatic Main Failure (AMF) control Panel with bypass / change over switch</u></b> Automatic start of 125 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory. The panel shall be complete with the following:	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactors of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	
viii	Microprocessor based AMF logic controller with following features:	
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6)Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines.	
	the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	<b>Earthing:</b> suitable earthing arrangement will be provided. Four number of earth sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories.	
	<b>Documentation:</b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>o Test Certificate of diesel engine.</li> <li>o Test certificate of Alternator.</li> <li>o Test Certificate of D.G. Set</li> </ul>	
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	
	<b>Painting:</b>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
	All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b>Training:</b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b>Warranty:</b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site. -Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	
k	Checking of proper functioning of instrument panel and AMF panel.	
l	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	



Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
	<ul style="list-style-type: none"> <li>Carry out any other periodic maintenance check as per OEM checklist.</li> </ul>	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintenance for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance on quarterly basis.	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

### Sch. 5 SMC Vijayawada - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about <b>125 KVA</b> capacity complying with the <b>latest CPCB IV</b> emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.	
	D.G Set shall comprise of: -	
a)	<b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions. The diesel engine model shall be tested & certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944, The engine shall be complete with standard accessories, spares and tools as detailed below: -	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<b>Alternator:</b> - The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be “H” for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.	
c)	<b>Base Frame &amp; Mounting Arrangement:</b> - The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator.	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: 1/4th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	Integral- Residential Exhaust Silencer	
	Suction Louvers	
	Discharge Louvers	
	Open able & lockable doors with airtight, high quality rubber gasket	
	Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trail, transportation and unloading of DG set.	
	<b><u>Automatic Main Failure (AMF) control Panel with bypass / change over switch</u></b> Automatic start of 125 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory. The panel shall be complete with the following:	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactor of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	
viii	Microprocessor based AMF logic controller with following features:	
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6) Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines.	
	the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	<b>Earthing:</b> suitable earthing arrangement will be provided. Four number of earth sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories.	
	<b>Documentation:</b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>o Test Certificate of diesel engine.</li> <li>o Test certificate of Alternator.</li> <li>o Test Certificate of D.G. Set</li> </ul>	
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	
	<b>Painting:</b>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b>Training:</b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b>Warranty:</b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site. -Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	
k	Checking of proper functioning of instrument panel and AMF panel.	
l	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
	<ul style="list-style-type: none"> <li>Carry out any other periodic maintenance check as per OEM checklist.</li> </ul>	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintenance for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance on quarterly basis.	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

### Sch. 6 IRL, Srinagar - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about <b>125 KVA</b> capacity complying with the <b>latest CPCB IV</b> emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.	
	D.G Set shall comprise of: -	
a)	<b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions. The diesel engine model shall be tested & certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944. The engine shall be complete with standard accessories, spares and tools as detailed below: -	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<b>Alternator:</b> - The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be "H" for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.	
c)	<b>Base Frame &amp; Mounting Arrangement:</b> - The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units	



Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator.	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: ¼th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	Integral- Residential Exhaust Silencer	
	Suction Louvers	
	Discharge Louvers	
	Open able & lockable doors with airtight, high quality rubber gasket	
	Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trial, transportation and unloading of DG set.	
	<b><u>Automatic Main Failure (AMF) control Panel with bypass / change over switch</u></b> Automatic start of 125 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory. The panel shall be complete with the following:	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactor of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	
viii	Microprocessor based AMF logic controller with following features:	
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6) Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines.	
	the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	<b>Earthing:</b> suitable earthing arrangement will be provided. Four number of earth sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories.	
	<b>Documentation:</b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>o Test Certificate of diesel engine.</li> <li>o Test certificate of Alternator.</li> <li>o Test Certificate of D.G. Set</li> </ul>	
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	
	<b>Painting:</b>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b>Training:</b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b>Warranty:</b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site. -Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	
k	Checking of proper functioning of instrument panel and AMF panel.	
l	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
	<ul style="list-style-type: none"> <li>Carry out any other periodic maintenance check as per OEM checklist.</li> </ul>	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintenance for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance on quarterly basis.	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

### Sch. 7 IRL, Dehradun - Silent Diesel Generator (DG) Set

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<p><b>Scope of work:</b> Supply, Installation, Testing and Commissioning of silent type Diesel generator set of about <b>125 KVA</b> capacity complying with the <b>latest CPCB IV</b> emission norms, complete with exhaust piping, earthing all accessories with Automatic Main Failure (AMF) panel including Bypass switch along with Standard Features, spares, accessories and handing it over to the site, thereafter.</p>	
	D.G Set shall comprise of: -	
a)	<p><b>Engine:</b> - Four stroke cycle (air cooled up to 15 KVA and water cooled above 20 KVA), electric start, developing required brake horsepower (BHP) at 1500 revolution per minute (RPM) under continuous duty conditions. The engine shall be designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10001/IS 10002/ ISO – 3046. with an overload capacity of 10% for one hour in any 12 hours continuous under standard reference conditions.. The diesel engine model shall be tested &amp; certified for complying with latest CPCB (Central Pollution Control Board) norms as per the new Govt order; The Gazette of India, CG-DL-E-04112022-240031, PART II—Section 3—Sub-section (i), No. 716] NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944. The engine shall be complete with standard accessories, spares and tools as detailed below: -</p>	
i.	Radiator with fan	
ii.	Exhaust gas turbocharger	
iii.	Residential type silencer with required length of exhaust pipe	
iv	Air cleaner	
v	Fuel lift pump	
vi	Lube oil filter	
vii	Fuel filter	
viii	Heavy Duty dynamically balanced flywheel	
ix	Electronic governor	
x	Starter with suitable capacity battery	
xi	Battery charging unit of suitable capacity for equipment	
xii	Microprocessor based DG set control panel	
	<ul style="list-style-type: none"> <li>consisting of engine safety module with built in ON/OFF/Start key, emergency stop, Lube oil pressure switch gauge, battery charging voltmeter, hour meter, coolant temperature gauge controller.</li> </ul>	
	<ul style="list-style-type: none"> <li>Alarms &amp; indications: Low Lube oil pressure, high coolant temperature, low coolant temperature, weak battery warning, sensor failure indication, over speed shut down system etc.</li> </ul>	
b)	<p><b>Alternator:</b> - The alternator shall be rated capacity at 0.8 power factor, 415 volts, 3 phase, 4 wire, 50 cycles/sec, 1500 rpm, self-excited and self-regulated, with brush less excitation. Band of voltage regulation shall be +2.5% of rated voltage from no load to full load. Insulation class shall be “H” for temperature rise consideration. The alternator shall be designed to withstand tropical/Indian geographical conditions. Required output shall be under NTP (Normal Temperature and Pressure) conditions. The alternator shall comply with BS 2613/IS 4722/IEC 34/ IS 13364, latest edition.</p>	
c)	<p><b>Base Frame &amp; Mounting Arrangement:</b> - The engine and the alternator shall be directly coupled to each other by means of couplings to form compact arrangement. Cooling system, engine and alternator units</p>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	need to be mounted on a rigid fabricated Mild Steel common base frame. The base frame of the diesel generating set must be sturdy and fabricated/ welded construction out of Mild Steel channel iron base of suitable size for mounting the above the engine and alternator. The base frame must be suitably designed to simplify the transportation, handling, slinging, erecting, and commissioning. The base frame must be painted with anti-corrosive epoxy painting. A set of anti-vibration pads must be provided between base frame and engine alternator.	
d)	<b>Battery: -</b> Suitable shield maintenance free (SMF) batteries of standard make with leads and terminals shall be part of the equipment. The pack must be suitably positioned and to be easy withdrawal for the service. The capacity (AH) of battery pack should be minimum 120 AH.	
e)	<b>Fuel Tank: -</b> Fuel Tank must be located nearest to the DG set enclosure and ensure the diesel free flow. Suitable capacity of fuel tank needs to run the DG set for about minimum of 12 hours. The fuel tank must consist of mounting bracket, level indicator, fuel inlet, fuel outlet, air vent, drain plug, inlet arrangement for direct filling and set of hoses for inlet and return.  Fuel consumption: 1/4th of the total KVA rating or better on 100 % (full) load.	
f)	<b>Exhaust Piping: -</b> The exhaust piping shall be of suitable size and dimensions as per manufacturers recommendations meeting the hospital standards and need to be customized as per the site requirements. The residential silencer must be provided to minimize the noise level with hospital setup conditions. The exhaust piping must be insulated with heat resistant material (asbestos and/ glass wool) and clamped/supported, mounted on the wall/ floor with suitable size clamp. Outlet of exhaust shall be taken out from the structure as per site conditions and covered to protect from atmosphere effects like rain etc. The exhaust piping must be plastered after completion of all the work. The material of piping shall be of approved make and quality of Mild Steel with necessary bends and flanges (for indoor installations).	
g)	<b>Acoustic Enclosure:</b> The enclosure must be CPCB (Central Pollution Control Board) approved with soundproof enclosure. The enclosure must be modular construction with hinge bolted structure to provide easy dismantling and reassembling. The DG set with enclosure shall undergo strict quality checks and testing to achieve high-end performance so that the offered DG set with enclosure enables the sound reduction and thus as per latest CPCB norms of noise at 1 Mtr. distance under free condition should be 75 db.  The Acoustic enclosure should be incorporated following:	
i.	The base plate fabricated with sheet metal of suitable thickness.	
ii.	The roof, sidewalls, integral partition, and doors shall be sandwich design made from good quality CRCA (cold rolled close annealed) sheet steel.	
iii.	The Acoustic enclosure shall be naturally cooled to maintain approximate temperature difference with ambient air of 70 deg C and if required forced ventilation shall also be considered.	
iv	The sound absorption material is selected from either glass wool/PU foam/ PVC foam of relevant thickness and density to have higher sound absorbing coefficient with low thermal conductivity to meet the performance.	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: .....
		Model:.....
v	The enclosure construction shall provide sufficient access for maintenance work. The door handles should be lockable type.	
vi	The control panel must be suitably mounted inside the DG set enclosure and enclosure door is provided with panel viewing window made from glass/ Acrylic and sealed with high quality Rubber gasket.	
vii	The enclosure shall be complete with:	
	Arrangement for power cable connection for load and mains supply	
	Integral- Residential Exhaust Silencer	
	Suction Louvers	
	Discharge Louvers	
	Open able & lockable doors with airtight, high quality rubber gasket	
	Interior lighting arrangement with ON/OFF switch on control panel as per the DG set size & Lifting arrangement	
	The engine and alternator must be flexibly coupled, aligned, and mounted with suitable anti vibration mountings.	
h)	<b>Installation of D.G. Set: -</b> R.C.C. Foundation: The D.G. set shall be installed on suitable R.C.C. foundation after preparing the excavation pit, R.C.C. foundation bed etc. of requisite size, length and dimensions shall be provided. The quantity of R.C.C. material shall be as per manufacturer's design. <b>Erection of D.G. set:</b> The base frame on which the engine and the alternator are mounted shall be tightened to rag bolts if required with proper levelling and alignment. The supplier needs to fill the diesel tank full on installation and initial battery charging, onsite fuel consumption testing, load trail, transportation and unloading of DG set.	
	<b><u>Automatic Main Failure (AMF) control Panel with bypass / change over switch</u></b> Automatic start of 125 KVA Generator sets on main supply electrical failure without requiring any human intervention. Similarly on restoration of mains supply it shall be able to transfer the load to mains supply and switch off the Generator set automatically (auto on and off). The Control panel shall be designed for automatic on mains failure' operation of the generator set. The panel must be in built design (inside acoustic enclosure) cubicle pattern and fabricated out of 16 SWG. Mild steel Sheet treated with anti-corrosion and painted with two coats of approved quality shade synthetic enamel / Power coated paint and appropriate ventilating arrangement. AMF should be ideally located near by the Low tension (LT) distribution panel of the laboratory. The panel shall be complete with the following:	
i.	Molded Case Circuit Breaker (MCCB) suitably rated with standard accessories.	
ii.	Contactor of suitable rating.	
iii.	Neutral isolation contactor of suitable relays.	
iv	Set of control fuses and auxiliary relays.	
v	Set of tinned Copper busbars of suitable rating.	
vi	Automatic battery charger circuit having variable input voltage from 180-230V but the constant output DC voltage, with ON/OFF switch, with ON indication, reverse polarity indication, DC battery charging ammeter.	
vii	Engine on-off (push button type).	
viii	Microprocessor based AMF logic controller with following features:	
	(1) 3 Phase sensing of mains failure	
	(2) Impulse start of DG Set	



Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	(3) Off/Manual/Auto/Test selector switch	
	(4) Sensing of mains voltage presence	
	(5) Engine idling/cooling	
	(6)Mains metering on one common screen (three phase) by providing load manager	
	(7) Digital Voltmeter	
	(8) Digital Ammeter	
	(9) Digital Frequency	
	(10) Digital KW meter	
	(11) Digital Power Factor meter	
	(12) Digital KWh meter	
ix	All other electrical/electronic components required for the functioning of the AMF control panel as per manufacturer's design/guidelines.	
	the bidder can provide one single panel inside the DG set canopy having all the required safety features, alarms and indications as mentioned in the technical specification of bid document with one manual change over switch outside of DG set for user operation having option of AMF mode and bypass mode with required control circuits and all required accessories cost need to be included in the site wise BOQ.	
	<b>Indications/alarm</b>	
	Five number- indicating lamps to indicate mains low voltage, load on mains, set running, load on set and battery charger on.	
	Audio visual alarm for low liberating oil pressure, high water temperature, high cylinder head temperature, start failure and DG overload.	
	Common alarm for engine failure	
	Set of Red Yellow Blue (RYB) indicating lamps for generator supply	
	The components used in the fabrication of the panel shall be of standard quality/ reliability and shall be of reputed make, the spares of which are readily available in the local market.	
	<b>Earthing:</b> suitable earthing arrangement will be provided. Four number of earth sets for DG set as below:	
	GI Plate earthing (2 sets) body earthing	
	Copper earthing (2 sets) neutral earthing	
	Chemical earthing also allowed. Bidders need to quote minimum 4 nos of chemical earthing with required accessories.	
	<b>Documentation:</b>	
	1 set of following documents shall be provided with each set: - <ul style="list-style-type: none"> <li>o Test Certificate of diesel engine.</li> <li>o Test certificate of Alternator.</li> <li>o Test Certificate of D.G. Set</li> </ul>	
	One set of operating manuals and two sets of control circuit drawing of panel in laminated form for the record purpose shall be provided.	
	The standard diagrams (Electrical & Electronics) and documents must be supplied along with the D. G. Set.	
	<b>Painting:</b>	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	All equipment shall be suitably cleaned, painted, and protected against corrosion and damage.	
	<b>Training:</b> Training should be provided to the site personals on D. G. Set operations and maintenance at the time of installation.	
	<b>Warranty:</b> - All the equipment shall be guaranteed against unsatisfactory performance and/ or break down due to defective design, workmanship, or material for a period of <b>two years</b> from the date of commissioning at the site. The equipment or components or any part thereof or consumable items like (lube oil, all filters etc.), so found defective/required for routine replacement during the guarantee/ warranty period shall be forthwith repaired or replaced free of cost to the entire satisfaction of the site. -Supplier to arrange periodic preventive maintenance and breakdown service visit during the two years of warranty period.	
	<ul style="list-style-type: none"> <li>First preventive maintenance is at 50 hours or 1 month from the date of commissioning, whichever occurs first, the first preventive maintenance is very important and mandatory, to be execute with zero tolerance.</li> </ul>	
	<ul style="list-style-type: none"> <li>Next Preventive maintenance is to be done at every 300 Hours or half yearly from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Subsequent Preventive maintenance is to be done at every 600 Hours or 1 year from the date of commissioning, whichever occurs first with replacement of consumables / any part of DG set.</li> </ul>	
	<ul style="list-style-type: none"> <li>Service call to be attended as and when required within 24 -48 hrs. of time.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any additional service visit as per manufacturer standards or recommendation</li> </ul>	
	<b><u>Maintenance: Works need to be covered during AMC period (after completion of the two-year of warranty period):</u></b>	
I.	<b>Mechanical work (monthly basis):</b>	
a	Checking the engine for its smooth running, unusual noise and colour of the smoke from the exhaust.	
b	Checking and adjusting fan belt tensions. Changing of the same if required.	
c	Cleaning of the Air filters to increase their life as well as proper inflow of air and replace if required.	
d	Checking for conditioning of coolant level and refill if required.	
e	Checking for conditioning of lube oil level and refill if required.	
f	Carrying out valve tappet setting as and when required.	
g	Checking of mounting bolts and replace if required.	
h	Checking for the proper functioning of engine safety like high water temperature gauge, oil pressure gauge, oil temperature gauge etc.	
i	Checking of turbo charger and accessory drive whenever required	
j	Checking the alignment of engine and alternator.	
k	Checking of proper functioning of instrument panel and AMF panel.	
l	Greasing of alternator bearing as per manufacturer recommendation.	
m	Fuel system	

Sl. No.	Bid Technical Specification (Main)	Bidder's Specification (technical compliance/ Deviation, if any)
		Make: ..... Model:.....
	<ul style="list-style-type: none"> <li>Checking and maintenance of fuel system including fuel tank, fuel piping, fuel valve etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any leakage from the fuel line system to be repaired.</li> </ul>	
n	Exhaust system	
	<ul style="list-style-type: none"> <li>Checking and maintenance of exhaust silence and exhaust stack etc.</li> </ul>	
	<ul style="list-style-type: none"> <li>Any smoke leakage from the exhaust system to be repaired.</li> </ul>	
	<ul style="list-style-type: none"> <li>Checking of insulation of exhaust piping.</li> </ul>	
	<ul style="list-style-type: none"> <li>Carry out any other periodic maintenance check as per OEM checklist.</li> </ul>	
II.	<b>Electrical work (monthly basis):</b>	
a	Checking and fault finding associated with the electrical systems of the engine.	
b	General cleaning of alternator of the DG set.	
c	Cleaning of battery terminals & de-sulphation and checking its functionality.	
d	Checking of wiring system for any loose and resolving it.	
e	Maintenance for smooth functioning if different parameters in generator engine and AMF panel.	
f	Diagnosis of various electrical faults and rectification at site.	
g	Fault rectification of AMF panel along with accessories.	
h	Maintenance of earth resistance and measuring of earth resistance on quarterly basis.	
III	A proper Logbook for Service Record must be maintained	
IV	Material / spares which are not covered under standard AMC, will be in the scope of user/ client side.	

## Letter of Financial Bid

### Form FIN I - Price Bid Form

***[to be submitted with Price Bid only]***

To,  
M/s Strategic Alliance Management Services Pvt. Ltd. (SAMS),  
B-18, Sector-6, Noida,  
G.B. Nagar – 201301 (U.P.)

Dear Sir,

**Subject: SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF SILENT DIESEL GENERATOR (DG) SET COMPLYING WITH THE LATEST CPCB IV EMISSION NORMS ACROSS TB LABS UNDER THE NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME (NTEP).**

**Bid Ref. No. .: SAMS/FIND India/G/2023/0026/ Proc./Equipment/ATE/27/2023 dt. 19/09/2023**

We, [**Name of Bidder**], hereby submit a bid for the construction of the above- referenced works in response to the above-referenced ITB for following Schedule:

<b>Schedule No. (as many as quoted by the Bidder)</b>	<b>Name of Site</b>

1. We warrant that in preparing and submitting this bid, we have complied with, and are willing to be bound by, any and all of the requirements and provisions of the above- referenced ITB, including the terms and conditions of the Contract as set out in the Bid Documents.
2. Based on the above, our proposed **Total Contract Price is Rs. \_\_\_\_\_ inclusive of all applicable taxes i.e. GST for..... schedules** (amount in words) and as per FIN-2 and FIN-3 Forms attached
3. I, the undersigned, certify that I am duly authorized by [**insert name of bidder**] to sign this bid and bind [**insert name of bidder**]:

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

## Form FIN-2 : Lump sum Contract Price

*(To be submitted for each quoted Schedule individually)*

**Schedule No.** \_\_\_\_\_

Description	Name of Equipment	Unit Cost	GST [%age & value]	Total Cost (inclusive of all applicable taxes (i.e. GST))
<p>A. Cost of Financial Bid for supply, installation, testing and commissioning of Equipment along-with 2 years of warranty</p> <p><b>Note: Cost quoted should match with the total Cost as per Form FIN-3: Priced Bill of Quantity</b></p>				
<b>TOTAL BID PRICE</b>				

Bidders are requested to submit the (company letter Head) below Price Schedule Form for the Annual Maintenance Charges (AMC) for 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> Year.

Sch. No.	Name of Site	Total Quantity (Nos.)	Unit price of 3rd Year of AMC Services	Unit price of 4th Year of AMC Services	Unit price of 5th Year of AMC Services	GST on AMC Services (%)	Total Price of 3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> Years of AMC Services (incl. of GST)
1	SPMC Bikaner	1					
1	BHU Varanasi	1					
2	RBIPMT, Delhi	1					
3	RIMS Adilabad	1					
4	SMC Vijayawada	1					
5	IRL Srinagar	1					
6	IRL Dehradun	1					

**Note: Above mentioned AMC Cost after the expiry of 2 year comprehensive warranty period would not be part of the financial evaluation, which will only be submitted by bidders for future reference along with uploaded financial bid documents..**

Total Price in figures and words: \_\_\_\_\_

Place: \_\_\_\_\_ Name \_\_\_\_\_  
Date: \_\_\_\_\_ Signature of Bidder \_\_\_\_\_  
Seal of the Bidder \_\_\_\_\_

\_\_\_\_\_

<sup>1</sup> Please provide spare part price list (as Annexure-A to FIN-2) as may be required (and valid) during entire duration of annual maintenance services.

**ANNEXURE-A**

**FORM FIN-2 – Price list of all necessary spare parts that may be required and should be valid during entire duration of annual maintenance services after completion of two years comprehensive warranty period**

<b>Sr. No.</b>	<b>Name of Spare Part</b>	<b>Unit Price (exclusive of GST)</b>	<b>GST</b>	<b>Total inclusive GST</b>
1				
2				
N				

### Form FIN-3 Cost of Works

(To be submitted for each quoted Schedule with Price bid only)

Bidders shall submit detailed workings of Lump Sum Contract Price (Component-A as given in FIN-2) for supply, installation, testing and commissioning of Silent Diesel Generator (DG) Set across TB Labs under the National Tuberculosis Elimination Programme (NTEP). The total price mentioned in the table below should coincide with the Price Component A as given in FIN-2 for each Schedule.

#### Schedule 1 = SPMC Bikaner

Sl. No.	D.G.SET WITH PANEL (SPMC Bikaner)	Unit of Measurement (UOM)	Qty.	Unit Rate (In INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation, Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation, Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including <b>Bypass switch</b> along with stand that will be suitable to DG Set	No	1			
3	<b>Cable tray</b> with cover and its accessories; 150 x 25mm (W x H) - (16 SWG - 1.6mm) with cover, perforated cable tray from MS sheet and then hot dip galvanized and associated accessories such as coupler plates, tees, elbow etc.	Rmtr.	20			
4	<b>RCC platform work</b> after preparing the excavation pit with associated civil work and <b>MS Structural for Shed</b> for DG set: RCC platform with TMT bar cage will be required because existing drainage line 19(L)* 3 (W) needs to be covered. DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
5	<b>Cabling work</b> :Compatible to DG set including labour cost; 3.5 C X 150 Sq.mm , Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables. Cables shall be fitted on wall / ceiling	Mtr.	22			



Sl. No.	D.G.SET WITH PANEL (SPMC Bikaner)	Unit of Measurement (UOM)	Qty.	Unit Rate (In INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
	by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.					
6	Supplying & laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	20			
7	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			
8	Supply, erection, testing and commission of <b>MS exhaust pipe</b> with MS Farme support, bends, flanges, rain cap & covers and all accessories complete in every way	RMtr.	12			
9	Transportation, Commissioning and Handling Charge	Job	1			
<b>Total Amount</b>						

**Schedule 2 = BHU Varanasi**

Sl. No.	D.G.SET WITH PANEL (BHU Varanasi)	UOM (Unit of measurement)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation, Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation, Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including <b>Bypass switch</b> along with stand that will be suitable to DG Set	No	1			
3	<b>Cable tray</b> with cover and its accessories; 150 x 25mm (W x H) - (16 SWG - 1.6mm) with cover, perforated cable tray from MS sheet and then hot dip galvanized and associated accessories such as coupler plates, tees, elbow etc.	Rmtr.	10			
4	<b>RCC platform work</b> after preparing the excavation pit with associated civil work and <b>MS Structural</b> for Shed for DG set: DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
5	<b>Cabling work</b> : compatible to DG set including labour cost; 3.5 C X 150 Sq.mm, Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables, cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.	Mtr.	29			
6	Supplying & laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	26			
7	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			

Sl. No.	D.G.SET WITH PANEL (BHU Varanasi)	UOM (Unit of measurement)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
8	Supply and laying of Heavy-duty reinforced cement concrete <b>(RCC) Hume pipe</b> for road crossing, below plinth beam of following size as diameter: 150mm Dia or as recommended by the company for enclosing provided cable & necessary back filling with light ramming to make the road/ground surface as it was original.	RMtr.	16			
9	Supply, erection, testing and commission of <b>MS exhaust pipe</b> with MS Farme support, bends, flanges, rain cap & covers, and all accessories complete in every way	RMtr.	12			
10	Transportation, Commissioning and Handling Charge	Job	1			
<b>Total Amount</b>						

**Schedule 3 = RBIPMT Delhi**

Sl. No.	D.G.SET WITH PANEL (RBIPMT, Delhi)	Unit of Measurement (UOM)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation, Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation, Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including <b>Bypass switch</b> along with stand that will be suitable to DG Set	No	1			
3	<b>RCC platform work after preparing the excavation pit with associated civil work and MS Structural for Shed for DG set:</b> <b>The DG set platform dimension required is 15 '(L) X 14'(W) X 1'(H) , shed dimension required is 15' feet (L) X 14' (W) X 12' (H).</b> DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
4	<b>Cabling work:</b> compatible to DG set including labour cost; 3.5 C X 150 Sq.mm, Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables. Cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.	Mtr.	100			
5	Supplying & laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	5			
6	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			

Sl. No.	D.G.SET WITH PANEL (RBIPMT, Delhi)	Unit of Measurement (UOM)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
7	Supply and laying of Heavy duty reinforced cement concrete <b>(RCC) Hume pipe</b> for road crossing, below plinth beam of following size as diameter: 150mm Dia or as recommended by the company for enclosing provided cable & necessary back filling with light ramming to make the road/ground surface as it was original.	Mtr.	80			
8	Supply, erection, testing and commission of <b>MS exhaust pipe</b> with MS Farme support, bends, flanges, rain cap & covers and all accessories complete in every way	Mtr.	5			
9	Transportation, Commissioning and Handling Charge	Job	1			
<b>Total Amount</b>						

**Schedule 4 = RIMS Adilabad**

Sl. No.	D.G.SET WITH PANEL (RIMS, Adilabad)	Unit of Measurement (UOM)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation, Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation, Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including Bypass switch along with stand that will be suitable to DG Set	No	1			
3	<b>RCC platform work</b> after preparing the excavation pit with associated civil work and <b>MS Structural</b> for Shed for DG set DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
4	<b>Cabling work</b> : compatible to DG set including labour cost; 3.5 C X 150 Sq.mm , Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables. Cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.	Mtr.	100			
5	Supplying & laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	95			
6	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			
7	Supply and laying of Heavy-duty reinforced cement concrete ( <b>RCC</b> ) <b>Hume pipe</b> for road crossing, below plinth beam of following size as diameter: 150mm Dia or as recommended by the company for enclosing provided cable & necessary back filling with light ramming to make the road/ground surface as it was original.	RMtr.	90			
8	Transportation, Commissioning and Handling Charge	Job	1			
<b>Total Amount</b>						

**Schedule 5 = SMC Vijayawada**

Sl. No.	D.G.SET WITH PANEL (SMC, Vijayawada)	Unit of Measurement (UOM)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation, Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation, Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including <b>Bypass switch</b> along with stand that will be suitable to DG Set	No	1			
3	<b>RCC platform work</b> after preparing the excavation pit with associated civil work and <b>MS Structural</b> for Shed for DG set DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
4	<b>Cabling work:</b> Compatible to DG set including labour cost; 3.5 C X 150 Sq.mm, Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables. Cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.	RMtr.	90			
5	Supplying & laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	35			
6	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			
7	Supply and laying of Heavy duty reinforced cement concrete <b>(RCC) Hume pipe</b> for road crossing, below plinth beam of following size as diameter: 150mm Dia or as recommended by the company for enclosing provided cable & necessary back filling with light ramming to make the road/ground surface as it was original.	RMtr.	15			
8	160 A Bus bar chamber	No	1			
9	Transportation, Commissioning and Handling Charge	Job	1			
<b>Total Amount</b>						

**Schedule 6 = IRL, Srinagar**

Sl. No.	D.G.SET WITH PANEL IRL, Srinagar	Unit of Measurement (UOM)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation, Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation, Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including <b>Bypass switch</b> along with stand that will be suitable to DG Set	No	1			
3	<b>Cable tray</b> with cover and its accessories; 150 x 25mm (W x H) - (16 SWG - 1.6mm) with cover, perforated cable tray from MS sheet and then hot dip galvanized and associated accessories such as coupler plates, tees, elbow etc.	Rmtr.	20			
4	<b>RCC platform work</b> after preparing the excavation pit with associated civil work and <b>MS Structural</b> for Shed for DG set: DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
5	<b>Cabling work:</b> compatible to DG set including labour cost; 3.5 C X 150 Sq.mm, Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables, cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.	RMtr.	25			
6	Supplying & laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	20			
7	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			
8	Supply, erection, testing and commission of <b>MS exhaust pipe</b> with MS Frame support, bends, flanges, rain cap & covers, and all accessories complete in every way	Rmtr.	12			
9	Transportation, Commissioning and Handling Charge	Job	1			
<b>Total Amount</b>						



**Schedule 7 = IRL, Dehradun**

Sl. No.	D.G.SET WITH PANEL IRL, Dehradun	Unit of Measurement (UOM)	Qty.	Unit Rate (in INR)	GST [%age & value]	Total Cost (inclusive of all taxes) (in INR)
1	Supply, Installation ,Testing and Commissioning (SITC) of <b>125 KVA CPCB IV emission norms-compliant silent type DG</b> set with panel	No	1			
2	Supply, Installation ,Testing and Commissioning (SITC) of <b>Automatic Main Failure (AMF)</b> panel including <b>Bypass switch</b> along with stand that will be suitable to DG Set	No	1			
3	<b>RCC platform work</b> after preparing the excavation pit with associated civil work and <b>MS Structural</b> for Shed for DG set: DG set shed with provision for fencing, door with lock-key arrangement. a. Framework vertically made of M S Square Pipe frame: 2 Inches X 2 Inches, 16 Gauge b. M S Fencing with wire mesh: ½ inch X ½ inch c. Supporting Structure M S Angle: 50 X 5 mm d. GI pre-coated corrugated profile roof sheet: 0.5 mm thick duly supported with J Hook. e. 10 SWG with provision of door with lock and key DG set Shed with fencing should be duly enamel painted and with anti-rust coating from both sides. The height covered shall be at least 9 feet or as suitable to the DG set. There should be no gap between roof sheet and wire mesh, if any angle creates gap, it should be covered with iron bars and wire mesh in between	Job	1			
4	<b>Cabling work</b> : compatible to DG set including labour cost; 3.5 C X 150 Sq.mm, Al conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed cables,cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope.	Mtr.	65			
5	Supplying & Laying of 12 Core 2.5 Sqmm armoured copper control cable or as recommended by the company for connecting AMF Panel and Generator.	RMtr.	55			
6	<b>GI Plate</b> earthing (2 sets) body earthing including necessary electrodes <b>Copper</b> earthing (2 sets) neutral earthing including necessary electrodes	Job	1			
7	Transportation ,Commissioning and Handling Charge	Job	1			
<b>Total cost</b>						

# Form of Bid Security Declaration

(only for MSME Bidders)

[Please refer to ITB Para 17 of the Bid Document]

*[The Bidder shall fill in this form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[date (as day, month and year)]*

Bid Ref. No.: *[number of bidding process]*

Ref:

To

The Director  
M/s Strategic Alliance Management  
Services Pvt. Ltd. B-18, Sector-6,  
Noida, G.B. Nagar  
Uttar Pradesh – 201301

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Purchaser for the period of 2 (two) years starting on *the date of suspension*, if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Technical Bid; or
- (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract; or (ii) fail or refuse to furnish the Performance Security, if required, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder \_\_\_\_\_

Name of the person duly authorized to sign the Bid on behalf of the Bidder \_\_\_\_\_

Title of the person signing the Bid \_\_\_\_\_

Signature of the person named above \_\_\_\_\_

Date signed \_\_\_\_\_

## Manufacturer's Authorization

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the **BDS**.]*

Date: *[insert date (as day, month and year) of Bid Submission]*

Bid Ref. No.: *[insert number of bidding process]*

To: *[insert complete name of Purchaser]*

### WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid, the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 29 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

## Proforma for Performance Statement (for a period of last five years)

Name of the Firm \_\_\_\_\_

Order placed by (full address of Purchaser)	Order No. and Date	Description and quantity of ordered goods	Value of order	Date of completion of delivery		Remarks indicating reasons for late delivery, if any	Has the supply of goods been satisfactory performance? *
				As per contract	Actual		
1	2	3	4	5	6	7	8

Signature and seal of the Bidder

The Bidder shall also furnish the following documents in connection with their past performance:

- i. Copy of Purchase Orders
- ii. Copy of Invoices
- iii. Proof of Payment received from Purchasers
- iv. Documentary evidence (Client's certificate) in support of satisfactory completion of contract

## Proforma for Other Details of Bidder, Manufacturer and its Bank

1. Name & full address of the Manufacturer:

2. (a) Telephone & Fax No

Office /Works

(b) Email

3. Location of the manufacturing factory.

4. Name & full address of the Bidder

5. (a) Telephone/Mobile & Fax No

Office/Factory/Works

(b) Email

6. Details of two Persons that Purchaser may contact for requests for clarification during bid evaluation:

	1 <sup>st</sup>	2 <sup>nd</sup>
(i) Name:		
(ii) Tel number (direct):		
( iii) Mobile No.		
(iv) Email address		

7. Bank details from where the Bank Guarantee for Bid Security has been issued:

(i) Name and address of the Bank:

(ii) Name of the contact Person

(iii) Phone number/Mobile

(iv) Fax Number

(v) Email address

**Signature and seal of the Bidder**

## **Section IX – General Conditions of Contract**

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## Section VII. General Conditions of Contract

### 1. Definitions

1.1 The following words and expressions shall have the meanings hereby assigned to them:

- (a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- (c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (d) "Day" means calendar day.
- (e) "Completion" means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (f) "GCC" means the General Conditions of Contract.
- (g) Goods may include all articles, material, commodities, electricity, livestock, furniture, fixtures, raw material, spares, instruments, software, machinery, equipment, industrial plant, vehicles, aircraft, ships, railway rolling stock and any other category of goods, whether in solid, liquid or gaseous form, purchased or otherwise acquired for the use of a procuring entity as well as services or works incidental to the supply of goods of the value of services or works or both does not exceed that of the goods themselves.
- (h) "Purchaser" means the entity purchasing the Goods, **as specified in the SCC.**
- (i) "SCC" means the Special Conditions of Contract.
- (j) "Subcontractor" means any person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- (k) "Supplier" means the person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- (l) "Consignee Location" means the place named in the **Schedule of Requirements.**

### 2. Contract Documents

2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof)

are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

### **3. Code of Integrity**

- 3.1 The Purchaser and all officers or employees of the purchaser, whether involved in the procurement process or otherwise, or Bidders and their representatives or consultants or service providers participating in a procurement process or other persons involved, directly or indirectly in any way in a procurement process shall maintain an unimpeachable standard of integrity.
- 3.2 Purchaser prescribes to the its personnel and Bidders to uphold the Code of Integrity, which prohibits officers or employees of a Purchaser or a person participating in a procurement process the following:
- (i) any offer, solicitation or acceptance of any bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process;
  - (ii) any omission, including a misrepresentation that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
  - (iii) any collusion, bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
  - (iv) improper use of information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process or for personal gain;
  - (v) any financial or business transactions between the bidder and any officer or employee of the Purchaser, who are directly or indirectly related to tender or execution process of contract;
  - (vi) any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
  - (vii) any obstruction of any investigation or audit of a procurement process;
  - (viii) making false declaration or providing false information for participation in -
    - a) tender process or to secure a contract;
    - b) disclosure of Conflict of Interest;



- c) disclosure by the bidder of any previous transgressions with any entity in India or any other country during the last three years or of any debarment by any other Procuring Entity

3.3 In case of any breach of the Code of Integrity by a bidder or a prospective bidder, as the case may be, the Purchaser after giving a reasonable opportunity of being heard, may take appropriate measures including –

- a) exclusion of the bidder from the procurement process;
- b) calling off of pre-contract negotiations and forfeiture or encashment of bid security;
- c) forfeiture or encashment of any other security or bond relating to procurement;
- d) recovery of payments made by the Purchaser along with interest thereon at bank rate;
- e) cancellation of the relevant contract and recovery of compensation for loss incurred by the Purchaser;
- f) debarment of the bidder from participation in any future procurements from Purchaser for a period not exceeding three years.

#### 4. Interpretation

4.1 If the context so requires it, singular means plural and vice versa.

##### 4.2 Incoterms

- a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms.
- b) The term DDP and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms **as specified in the SCC** and published by the International Chamber of Commerce in Paris, France.

##### 4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

##### 4.4 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

#### 4.5 Non-waiver

- (a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

#### 4.6 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

### 5. Language

- 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in English language. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by a self-certified accurate translation of the relevant passages in English language, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

### 6. Joint Venture or Consortium

- 6.1 Consortium or Joint Venture are not permitted

### 7. Eligibility

- 7.1 The Supplier and its Subcontractors shall have the nationality of any country with which India has not banned trade relations.
- 7.2 All Goods to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term "origin" used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied

- 8. Notices**
- 8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the **address specified in the SCC**. The term “in writing” means communicated in written form with proof of receipt.
- 8.2 A notice shall be effective from the date of delivery or on the notice’s effective date, whichever is later. In case of electronic mode of communication, a notice shall be effective from the time of sending of the electronic communication.
- 9. Governing Law**
- 9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Union of India.
- 10 Settlement of Disputes**
- 10.1 The Purchaser and the Supplier shall make every effort to resolve amicably any disagreement or dispute arising between them under or in connection with the Contract.
- 10.2 Dispute Redress mechanism/ Committees: 2-tier (Procuring entity level headed by the Director, State Redress Committee).
- 10.3 If, the dispute is not settled through dispute settlement mechanism and if after sixty (60) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration wherever applicable, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC**.
- 10.4 Notwithstanding any reference to arbitration herein,
- (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) the Purchaser shall not be required to pay the Supplier any monies to the Supplier in respect of the matter related to the arbitration unless otherwise agreed.
- 11. Inspections and Audit by the Purchaser**
- 11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time changes and costs.
- 11.2 The Supplier shall permit, and shall cause its Subcontractors to permit, the Purchaser and/or persons appointed by the Purchaser to inspect the Supplier’s offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the

Purchaser, if requested. The Supplier's and its Subcontractors and consultants' attention is drawn to Clause 3 [Code of Integrity], which provides, inter alia, that acts intended to materially impede the exercise of the Purchaser's inspection and audit rights provided for under this Sub-Clause 11.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Purchaser's prevailing sanctions procedures)

<b>12. Scope of Supply</b>	12.1	The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.
<b>13. Delivery and Documents</b>	13.1	Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the <b>SCC</b> .
<b>14. Supplier's Responsibilities</b>	14.1	The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.
<b>15 Contract Price</b>	15.1	Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the <b>SCC</b> .
<b>16. Terms of Payment</b>	16.1	The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the <b>SCC</b> .
	16.2	The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and related services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.
	16.3	Payments shall be made by the Purchaser, after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it subject to the defect liability as specified in the SCC.
	16.4	The payments shall be made to the Supplier under this Contract in Indian Rupees only.
<b>17. Taxes and Duties</b>	17.1	The Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
<b>18. Performance Security</b>	18.1	If required as specified in the SCC, the Supplier shall, within fifteen (15) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the <b>SCC</b> .

- 18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 18.3 The Performance Security if required, shall be denominated in Indian Rupees and shall be in one of the format stipulated by the Purchaser in the **SCC**.
- 18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the **SCC**.

## **19. Copyright**

- 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party

## **20. Patent Indemnity**

- 20.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 20.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- (a) the installation of the Goods by the Supplier or the use of the Goods at the Purchaser's Site; and
  - (b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 20.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 20.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name

conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

- 20.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.
- 20.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 20.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

**21. Confidential Information**

- 21.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
- 21.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
- 21.3 The obligation of a party under GCC Sub-Clauses 21.1 and 21.2 above, however, shall not apply to information that:
- (a) the Purchaser or Supplier need to share with the such institution(s) participating in the financing of the Contract;

- (b) now or hereafter enters the public domain through no fault of that party;
- (c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- (d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

21.4 The above provisions of GCC Clause 21 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

21.5 The provisions of GCC Clause 21 shall survive completion or termination for whatever reason, of the Contract.

## **22. Subcontracting**

22.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

22.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

## **23.**

### **Specifications and Standards**

#### **23.1 Technical Specifications and Drawings**

- (a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.
- (b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
- (c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

## **24. Packing and Documents**

24.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open

storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

24.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the **SCC**, and in any other instructions ordered by the Purchaser.

## **25. Insurance**

25.1 Unless otherwise specified in the **SCC**, the Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the **SCC**.

## **26. Transportation and Incidental Services**

26.1 Unless otherwise specified in the **SCC**, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.

26.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, **specified in SCC**:

- (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

26.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services

## **27. Inspections and Tests**

27.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods as are specified in the **SCC**.



- 27.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in the Purchaser's Country as specified in the **SCC**. Subject to GCC Sub-Clause 27.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 27.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 27.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 27.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 27.5 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 27.6 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 27.4.
- 27.7 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 27.5, shall release the Supplier from any warranties or other obligations under the Contract.

## **28. Liquidated Damages**

- 28.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the **SCC** of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the **SCC**. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

## **29. Warranty**

- 29.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 29.2 Subject to GCC Sub-Clause 23.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the state.
- 29.3 Unless otherwise specified in the **SCC**, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof, as the case may be, have been delivered to and accepted at the final destination indicated in the **SCC**.
- 29.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 29.5 Upon receipt of such notice, the Supplier shall, within the period specified in the **SCC**, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 29.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the **SCC**, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

## **30 Limitation of Liability**

- 30.1 Except in cases of criminal negligence or willful misconduct, the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement.

## **31. Change in Laws and Regulations**

- 31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in India (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already

been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

### **32. Force Majeure**

- 32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

### **33. Change Orders and Contract Amendments**

- 33.1 The Purchaser may at any time order the Supplier through notice in accordance to GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:
- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
  - (b) the method of shipment or packing;
  - (c) the place of delivery; and
  - (d) the related services to be provided by the Supplier.
- 33.2 If any such change causes an increase or decrease in the cost of, or the time required for the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.
- 33.3 Prices to be charged by the Supplier for any related services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

- 33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
- 34. Extensions of Time**
- 34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of related services pursuant to GCC Clause 14, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 28, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.
- 35. Termination**
- 35.1 Termination for Default
- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
- i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34;
  - ii) if the Supplier fails to perform any other obligation under the Contract; or
  - iii) if the Supplier, in the judgment of the Purchaser has engaged in breach of Code of Integrity, as defined in GCC Clause 3, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods procured by the Purchaser.. However, the Supplier shall continue performance of the Contract to the extent not terminated.
- 35.2 Termination for Insolvency.
- The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier,

provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser

### 35.3 Termination for Convenience.

The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

to have any portion completed and delivered at the Contract terms and prices; and/or

to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

## **36. Assignment**

36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

## Section VIII – Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC

<b>GCC 1.1(h)</b>	The Purchaser is: _____
<b>GCC 1.1 (l)</b>	The Project Site(s)/Final Destination(s) is <b>Specified in Schedule of Requirement.</b>
<b>GCC 4.2 (b)</b>	The version edition of Incoterms shall be <i>2020</i>
<b>GCC 8.1</b>	<p>For <b><u>notices</u></b>, the Purchaser's address shall be:</p> <p>_____</p> <p>For <b><u>notices</u></b>, the Supplier's address shall be:</p> <p>_____</p>
<b>GCC 10.3</b>	<p>The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.3 shall be as follows:</p> <p>i) In case of Dispute or difference arising between the Purchaser and a supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed in accordance with the provisions of the Arbitration and Conciliation Act 1996.</p> <p>ii) If one of the parties fails to appoint its arbitrator in pursuance of sub clause (a) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the appointment of the Arbitrator shall be made in accordance with the provisions of the Arbitration and Conciliation Act 1996.</p> <p>iii) The venue of Arbitration shall be New Delhi and the language of the arbitration proceedings and that of all councils and communications between the parties shall be English.</p> <p>iv) The decision of the majority of arbitrators shall be final and binding upon parties. The cost and expenses of Arbitration proceedings will be paid as</p>

	<p>determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.</p> <p>v) The provisions of the Arbitration and Conciliation Act of 1996 along with the Rules herewith and any statutory modification or reenactment thereof shall apply to arbitration proceedings.</p> <p>vi) If a dispute under the Supplier Contract raises the same issues as those in respect of a related dispute with another supplier contract, the Purchaser will have the option of having the arbitration proceedings joined.</p>
<b>GCC 12 (additional clause 12.2)</b>	<p>Add as a new Clause 12.2 of the GCC</p> <p><i>[ in case annual maintenance services are required post warranty, add these clauses with modifications as appropriate]</i></p> <p>The supplier will provide 2 years warranty that will include Comprehensive Annual maintenance (Contract) including all spare parts and repair <i>[insert as required]</i></p> <p>The supplier shall visit each site at least twice a year for preventive maintenance of equipment. During such visits, shall provide operational training to concerned staff on use of equipment. The Schedule of such visits should be shared with consignee in advance. The manufacturer should be able to provide service of equipment across the State within 24- 48 hours after receipt of breakdown report for the metro location and within 3-5 days for the non-metro located instruments, failing which a penalty as stipulated below will apply</p> <p>During the Warranty period in case of non-compliance of the above, liquidated damages at the rate of 0.5% for of the prices of any portion of stores delivered late, for each week or part thereof of delay.</p>
<b>GCC 13.1</b>	<p>Details of Documents to be furnished by the Supplier are:</p> <ul style="list-style-type: none"> <li>(i) One original and two copies of the supplier's commercial invoice in name of Purchaser, indicating the Contract number, Goods description, quantity, unit price, and total amount being claimed. Invoices must be signed in original and stamped, or sealed with the company stamp/seal;</li> <li>(ii) One original of the manufacturer's Warranty Certificate covering all items supplied;</li> <li>(iii) Any other/additional procurement-specific documents required for delivery/payment purposes showing delivery up to final destination.</li> </ul>
<b>GCC 15.1</b>	<p>The prices charged for the Goods supplied and the related Services performed shall be fixed during the performance of the contract.</p>
<b>GCC 16.1</b>	<p>The payment under this Contract shall be released by the Purchaser after due scrutiny, verification of documents submitted by supplier. Payment shall be made</p>

	<p>by Electronic clearing systems (ECS) to the Supplier's nominated bank account. The method and conditions of payment to be made to the Supplier shall be as follows:</p> <p><i>[the clauses below are suggestive; the purchaser may modify as appropriate]</i></p> <p>(a) <b>On Delivery:</b> Eighty (80) percent of the Contract Price of the Goods delivered to the consignee shall be paid within sixty (60) days of submission of documents specified in SCC Clause 13 above and Consignee Receipt Certificate</p> <p>(b) <b>On Successful, Installation, Commissioning and Testing of equipment:</b> Twenty (20) percent of the Contract Price of Goods received shall be paid within sixty (60) days of receipt of the Final Acceptance Certificate issued by the consignee.</p>
<b>GCC 18.1</b>	<p>Within 15 days after the Supplier's receipt of Notification of Award, the Supplier shall furnish Performance Security to the Purchaser for an amount of 10% <i>[insert as appropriate]</i> of the contract value, valid up to 90 days after the date of completion of performance obligations including warranty obligations.</p> <p>In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of <b>12 months</b> and the Performance Bank Guarantee for proportionate value shall be extended 90 days over and above the extended warranty period.</p>
<b>GCC 18.3</b>	<p>The performance security shall be in the form of a bank guarantee and the named beneficiary shall be _____ <b>[name of purchaser]</b>. The bank guarantee shall be issued by a Scheduled Bank in India and in the format provided in the Bidding Documents.</p>
<b>GCC 18.4</b>	<p>The Performance Security will be discharged and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligation, under the contract.</p>
<b>GCC 24.2</b>	<p>The packing, marking and documentation within and outside the packages shall be</p> <p><u>Packing Instructions:</u> The Supplier will be required to make separate packages for each Consignee. Each package will be marked with proper paint/indelible ink with the following: <i>[insert as required]</i></p>
<b>GCC 25.1</b>	<p>The insurance shall be in an amount equal to 110 percent of the CIP value of the Goods from "warehouse" to "warehouse" on "All Risks" basis, including war risks and strikes showing purchaser as Beneficiary.</p>
<b>GCC 26.1</b>	<p>The Supplier is required under the Contract to transport the Goods to the specified place of final destination. Transportation to such place of destination,</p>



	including unloading, insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs are included in the Contract Price.
<b>GCC 26.2</b>	Incidental services to be provided are: As per Section – V Schedule of Requirement – Technical Specifications
<b>GCC 27.1</b>	The Supplier shall conduct tests to confirm that the goods supplied are as per specification and enclose the test and inspection certificate along with supply.
<b>GCC 27.2</b>	<p>The Purchaser or his representative may conduct the Inspections of the facility any time before the award of contract and also conduct Inspection for the Goods any time before or after the dispatch of Goods.</p> <p>Unless the Goods supplied according to the Schedule of Requirements is satisfactorily installed and training on use of the equipment is provided, the Consignee will not issue the Final Acceptance Certificate.</p>
<b>GCC 28.1</b>	Applicable rate shall not exceed one-half percent ( <b>0.5%</b> ) per week or part thereof
<b>GCC 28.1</b>	The maximum amount of liquidated damages shall be: <i>10%</i>
<b>GCC 29.3</b>	<p>(i) In partial modification of the provisions, the warranty period shall remain valid for the period specified in Schedule of Requirements</p> <p>For purposes of the Warranty, the place(s) of final destination(s) shall be: as specified in the schedule of requirement</p> <p>The consignees mentioned in the Schedule of Requirement (Section V)</p>
<b>GCC 29.5</b>	<p>The manufacturer should be able to provide service of equipment across the State within 24- 48 hours after receipt of breakdown report for the metro location and within 3-5 days for the non-metro located instruments, failing which a penalty as stipulated below will apply.</p> <p>In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of <b>12 months.</b>" <i>[modify period as appropriate]</i></p>

## Section – IX Contract Form

### Contract Agreement

*[The successful Bidder shall fill in this form in accordance with the instructions indicated]*

THIS AGREEMENT made

the *[insert: **number**]* day of *[insert: **month**]*, *[insert: **year**]*.

BETWEEN

- (1) *[insert complete name of Purchaser]*, a *[insert description of type of legal entity, for example, an agency of the Ministry of .... of the Government of {insert name of Country of Purchaser}, or corporation incorporated under the laws of {insert name of Country of Purchaser}]* and having its principal place of business at *[insert address of Purchaser]* (hereinafter called “the Purchaser”), of the one part, and
- (2) *[insert name of Supplier]*, a corporation incorporated under the laws of *[insert: country of Supplier]* and having its principal place of business at *[insert: address of Supplier]* (hereinafter called “the Supplier”), of the other part :

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services

The Purchaser and the Supplier agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
  - (a) the Letter of Acceptance
  - (b) the Letter of Technical Bid and Financial Bid
  - (c) the Addenda Nos. \_\_\_\_\_ (if any)
  - (d) Special Conditions of Contract
  - (e) General Conditions of Contract
  - (f) the Specification (including Schedule of Requirements and Technical Specifications)
  - (g) the completed Schedules (including Price Schedule)
  - (h) any other document listed in GCC as forming part of the Contract

3. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*

in the capacity of *[ insert title or other appropriate designation ]*

in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*

in the capacity of *[ insert title or other appropriate designation ]*

in the presence of *[ insert identification of official witness]*

# Letter of Acceptance

*[on letterhead paper of the Purchaser]*

..... **date.** .....

To: *[insert name and address of the Supplier]*

Subject: **Contract No.** .....

This is to notify you that your Bid dated \_\_\_\_\_ *[insert **date of bid submitted by the bidder**]* for the execution of \_\_\_\_\_ *[insert **brief description of Goods and related services**]* against Bid Invitation Ref. No. \_\_\_\_\_ *(insert **Bid Ref. No.**)* is hereby accepted by the Purchaser for the Contract Amount of Rs. \_\_\_\_\_ *[insert **amount in numbers and words**]*, as corrected and modified in accordance with the Instructions to Bidders.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the *of* the Performance Security Form included in Section IX, Contract Forms of the Bidding Documents.

Authorized Signature: .....

Name and Designation of Signatory: .....

Name of Purchaser: .....

# Performance Security

## Bank Guarantee

*[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]*

**Beneficiary:** *[insert name and Address of Purchaser]*

**Date:** *\_ [Insert date of issue]*

**PERFORMANCE GUARANTEE No.:** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *\_ [insert name of Supplier]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the supply of *\_ [insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (*[insert amount in words]*),<sup>1</sup> such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the .... Day of ....., 2...<sup>2</sup>, and any demand for payment under it must be received by us at this office indicated above on or before that date.

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*[signature(s)]*

**Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.**

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<sup>1</sup> *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance.*

<sup>2</sup> *Insert the date twenty-eight days after the expected completion dates described in GC Clause 18.4. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

## ***Acknowledgement of Receipt of Goods (for 80% Payment)***

***(This certificate is to be issued to SAMS and copy to Supplier and FIND. All the three copies should be signed in ORIGINAL.)***

### **CONSIGNEE RECEIPT CERTIFICATE (CRC)**

**CRC No.**

**Date**

To  
Strategic Alliance Management Services Pvt. Ltd,  
B-18, Sector-06, NOIDA  
Gautam Budh Nagar (U.P.)- 201301

This is to certify that the Goods as detailed below have been received without any physical damage.

Project Name	Procurement Services to Foundation for Innovative New Diagnostics India (FIND India)
Purchaser	Strategic Alliance Management Services Pvt. Ltd., on behalf of FIND India
Contract i.e. NOA No. & Date	
<b>Description of Goods Supplied</b> Name of Equipment/ Laboratory Materials: Schedule No. as per Contract: Model: Serial No.:	
Packing and labeling details	
Date of manufacturing	
Date of Expiry	
Quantity supplied in Numbers	
Name of Supplier	
Invoice No. and Date	
<b>Date of Delivery at Consignee Destination site</b>	
Consignee full Address Name Address Contact No. Fax No.	

**Seal Signature of Designated Consignee**

**Name :**

**Designation:**

**Seal:**

**Contact No:**

**Fax No. :**

#### **Copy To: (with Original Stamp and signature)**

1. To Supplier
2. Procurement Officer, Foundation for Innovative New Diagnostics (FIND), Flat No. 6 & 8 – 14, 9<sup>th</sup> Floor, Vijaya Bank Building, 17, Barakhamba Road, New Delhi -110001, India

***Final Acceptance Certificate (for Balance 20% Payment)***  
***(This certificate is to be issued to SAMS and copy to Supplier. All the three copies 'should be signed in ORIGINAL'.)***

**FINAL ACCEPTANCE CERTIFICATE (FAC)**

**FAC No.**

**Date:**

**To**

Strategic Alliance Management Services Pvt. Ltd,  
 B-18, Sector-06, NOIDA  
 Gautam Budh Nagar (U.P.)- 201301

Project Name	Procurement Services to Foundation for Innovative New Diagnostics India (FIND India)
Purchaser	Strategic Alliance Management Services Pvt. Ltd., on behalf of FIND India
Contract i.e. Notification of Award No. & Date	
<b>Description of Goods Supplied</b> Name of Equipment: Schedule No. as per Contract: Model: Serial No.:	
Name of Supplier	
Quantity Supplied in Numbers	
List with name of all or any accessories as per contract supplied with the equipment	
<b>Date of Installation, testing and commissioning</b>	
Is successful Installation, testing and commissioning of equipment supplied, upto the satisfaction of User done or not <b>(Yes/No)</b>	
Whether training provided to all users upto the satisfaction or not <b>(Yes/No)</b>	
Date of Final Acceptance	
Invoice No. and Date	
Date of entry in Asset register	
Consignee full Address Name Address Contact No.	

**CERTIFICATE**

*This is to certify that we have received medical Equipment/ lab materials as detailed above in good condition in accordance with the Technical specifications and conditions of the NOA/ Contract and the same has been successfully Installed and Commissioned (if, applicable) on \_\_\_\_\_ to the satisfaction of all users and entered in the Asset/Consumable/Non-Consumable Register at page no. \_\_\_\_\_ on*

**Seal & Signature of Designated  
 Consignee  
 Name:  
 Designation:**

**Copy To: (with Original Stamp and signature)**

- (1) To Supplier
- (2) Procurement Officer, Foundation for Innovative New Diagnostics (FIND), Flat No. 6 & 8 – 14, 9<sup>th</sup> Floor, Vijaya Bank Building, 17, Barakhamba Road, New Delhi -110001, India