

**INDIRA GANDHI INSTITUTE OF DEVELOPMENT RESEARCH
GOREGAON (EAST), MUMBAI**

TENDER DOCUMENT FOR

**Supply, Installation, Testing and Commissioning of 20 kVA Diesel Generator set at
IGIDR, Mumbai**

NIT No: IGIDR/Tender/2020-21/CC/06

INDIRA GANDHI INSTITUTE OF DEVELOPMENT RESEARCH

Gen. A.K. Vaidya Marg, Film city Road, Santosh Nagar, Goregaon (EAST), MUMBAI-400065.

TELEPHONE: 022 2841 6200 / 548. FAX: 022 2841 6399.

INDIRA GANDHI INSTITUTE OF DEVELOPMENT RESEARCH, MUMBAI

Notice Inviting Tender

“NAME OF THE WORK: **SITC of 20 kVA DG set at IGIDR, Mumbai**
at INDIRA GANDHI INSTITUTE OF DEVELOPMENT RESEARCH, GOREGAON, MUMBAI – 400
065.”

1. Institute invites sealed bids from reputed vendors for the following work:

Name of work	EMD	Period of Completion
(1)	(2)	(3)
SITC of 20 kVA Diesel Generator Set	Rs. 10,000.00	4 weeks

IGIDR reserves its right to award the work to the successful bidder.

2. Bidder has to submit Earnest Money Deposit Rs. 10,000.00 only along with the bid.
3. Tender in sealed envelope, supported by prescribed annexure; EMD, Technical bid & financial bid shall be placed in separate sealed envelopes each marked as “**Envelope-1: EMD**”, “**Envelope-2: Pre-qualification & Technical Bid**”, “**Envelope-3: Financial bid**” respectively. All three envelopes shall be submitted together in another sealed envelope endorsed “Tender for **SITC of 20 kVA DG set** at IGIDR”. The bidder also submit the **scan copy** of the “Pre-qualification technical bid” and EMD details (DD/FD/BG/UTR) through email to E-mail id tender@igidr.ac.in with **Subject “EMD-Pre-qualification Technical bid**” attaching a single zip file or single PDF file.
4. Last date of submission of the Tender document shall be up to **3:00 PM on 25 February, 2021**. No tender will be accepted after 3:00 PM on 25 February 2021 under any circumstances whatsoever.
5. The Institute reserves the right to reject any prospective application without assigning any reasons whatsoever.

REGISTRAR

SECTION-A

LETTER OF OFFER *

Date _____

The Registrar,
Indira Gandhi Institute of Development & Research,
Gen. A.K. Vaidya Marg, Film city Road,
Goregaon (East), Mumbai 400065.

Subject: SITC of 20 kVA DG Set at IGIDR, Mumbai.

Reference: NIT No: IGIDR/Tender/2020-21/CC/06

Date:

Dear Sir,

With respect to your above mentioned tender, I / We hereby submit my / our tender in the required format along with Company Profile and supporting documents.

Should this tender be accepted, I/We hereby agree to abide by and fulfill the terms and provisions of the said Conditions of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit the EMD and pay to the IGIDR the amount mentioned in the said Conditions.

I/We have deposited earnest money through NEFT/DD/FDR/BG/ to the IGIDR, which will not bear any interest.

Should I/We fail to execute the contract when called upon to do so. I/We do hereby agree that this sum shall be forfeited by me/us to the IGIDR.

I / We have carefully gone through the terms and conditions prescribed and I / We accept the same into without any alterations / modifications.

Yours faithfully,

Signature

Name & seal of Contracting

Agency/firm/company

**To be printed on company Letterhead and scanned or digitally signed pdf document*

SECTION-B
GENERAL INSTRUCTIONS TO TENDERER

Sealed Tender should be addressed to The Registrar, Indira Gandhi Institute of Development Research, Goregaon (East), Mumbai-400065.

1. If applicable Bidder must submit Earnest Money Deposit Rs. 10,000.00 through DD/FDR/BG/NEFT to “INDIRA GANDHI INSTITUTE OF DEVELOPMENT RESEARCH”, Account No: 010220100010001, IFS Code: BKID0000102, BRANCH NAME: IGIDR, BANK NAME: BANK OF INDIA and UTR NO. with screenshot of transaction should be included in the part of tender document towards Earnest Money.

2. The Earnest Money deposit by a Demand Draft/ Bank Guarantee issued by a Schedule Bank drawn in favor of Indira Gandhi Institute of Development Research, Mumbai shall be accepted by the Institute. A tender which is not accompanied by EMD (if applicable) will not be considered. The EMD will be returned to the bidder if their tender is not accepted by the Institute but without Interest. The EMD paid by the successful bidder shall be held/encashed by the IGIDR as security for execution and fulfillment of the contract. No interest shall be paid on this deposit. **The bidders who are exempted from submission of EMD, bidders should submit the copy of certificate issued by Micro and Small Enterprises (MSEs).**

3. The **Envelope-1 & 2** with subject “**EMD, Technical & Prequalification bid for SITC of 20 kVA DG Set at IGIDR**” shall be opened by REGISTRAR or his authorized representative in his office on the same day at **4:00 PM**. In case, holiday is declared by the Government on the day of opening the bids, the bids will be opened on the next working day at the same time.

4. **Financial bid** of only qualified bidders will be opened. The date of opening of financial bid shall be informed by the institute to the qualified bidders.

5. Tenders shall remain valid for acceptance by the Institute for a period of three months from the date of opening of the tender which period may be extended by mutual agreement and the bidder shall not cancel or withdraw the bid during this period.

6. The bidder must use only the formats issued by the Institute to fill in the rates. Any addition/alteration in the text of the Tender form made by the bidder shall not be valid and shall be treated as null and void.

7. The Tender form must be filled in English. If any of the documents is missing or unsigned, the tender may be considered invalid by the Institute in its discretion.

8. Rates should be quoted both in figures and in words in columns specified. Overwriting of figures is not permitted. Failure to comply with either of these conditions will render the tender void at the

Institute's option. No advice whatsoever especially on any change in rate specifications after the opening of the tender will be entertained.

9. Each Page of the Tender Documents should be stamped and signed by the authorized person or persons submitting the Tender in token of his/their having acquainted himself/themselves with the General terms & conditions, specifications, special conditions of contract, etc. as laid down. Any Tender with any of the documents not so signed will be rejected.

10. The successful bidder will have to deposit a Performance Security Deposit of 5% of order value, within 30 days of the receipt of the formal order. The performance security will be furnished in the form of an account payee Demand Draft, FDR or Bank Guarantee from a commercial bank drawn in favour of "The Registrar, Indira Gandhi Institute of Development Research, Mumbai" payable at Mumbai. The performance security should remain valid for warranty period specified in tender. This deposit shall be forfeited in case the contractor, who fails to discharge its duties/commitments or whose contract is terminated prematurely. No interest will be paid on Security Deposit withheld by the Institute.

11. The Institute does not bind itself to accept the lowest or any tender and reserves to itself the right to accept or reject any or all the Tenders, either in whole or in part, without assigning any reasons for doing so.

12. On receipt of intimation from the Institute of the acceptance of their tender, the successful vendor/contractor shall be bound to sign the formal contract /Purchase order and acknowledge the same within seven days.

13. Tender bid must include in their rates, applicable GST and any other tax and duty or other levy in force levied by the Central Government or any State Government or Local Authority, if applicable.

14. Before quoting, the tenderer shall inspect the site, to fully acquaint himself about the condition in regard to accessibility of the site, working condition of site, locality including installations of tools and plants (T&P) and local authority regulations / restrictions if any, conditions affecting accommodations and movement of personnel etc. required for the satisfactory execution of the work contract. No claim whatsoever on such account shall be entertained by the IGIDR in any circumstances.

15. The intending bidder can obtain any clarifications regarding the tender document, scope of work etc. if any from the office of the Estate department, **Shyamkant Ahire**, **Email: shyamkant@igidr.ac.in**, **Mobile: 9920153014** on any Institute`s working day.

I/We hereby declare that I/we have read and understood the above instructions and the same will remain binding upon me/us.

Place:

Signature of Bidder

Date:

With the seal of their company

SECTION 'C'
TERMS AND CONDITIONS

Upon the declaration of an intending vendor/bidder to be the Successful Bidder by the Institute, they shall be subject to the following terms and conditions that shall form part of the Formal Contract to be executed with the Institute.

1. The successful bidder shall not assign the sub-contract. In case of breach of these conditions, the IGIDR may serve a notice in writing on the Contractor rescinding the contract.
2. The successful bidder shall carry out all the work strictly in accordance with scope of work, technical specifications and as per detailed instructions of the Institute.
3. The successful bidder must cooperate with the other contractor appointed by the Institute so that the work shall proceed smoothly to the satisfaction of the Institute.
4. In all matters of dispute arising on the work, the matter shall be referred to **The Registrar, Indira Gandhi Institute of Development Research, Goregaon** for a mutual decision.
5. **Arbitration Clause:** In the event that the Successful Bidder is not satisfied by the decision of the Registrar, Indira Gandhi Institute of Development Research, the dispute shall be settled by arbitration in accordance with the provisions of arbitration and conciliation act, 1996 or any enactment thereof. The Arbitral Tribunal shall consist of one arbitrator, to be appointed by the Institute. The place of arbitration shall be Mumbai and any award whether interim or final, shall be made, and shall be deemed for all purposes between the parties to be made in Mumbai. The arbitration proceedings shall be conducted in the English language and any award or awards shall be rendered in the English language. The procedural law of the arbitration shall be the Indian law. The award of the arbitral tribunal shall be final, conclusive and binding upon the Successful Bidder and the Institute.
6. **Payment Terms:** 100% Payment will be released after successful supply, installation, testing and commissioning of Diesel Generator set at IGIDR against submission of certified invoice.
7. **Completion Period:** The work should be completed within 4 weeks from the date of award of work order.

- 8. Penalty:** If the successful bidder fails to complete the work in stipulated time period, penalty to such effect would be charged. IGIDR reserves rights to forfeit the security deposit if any.
- 9. Warranty Period:** The warranty period should be 2 years from the date of successful completion of Supply, Installation, Commissioning, Testing and Handing over of DG Set.

I/We hereby declare that I/we have read and understood the above terms and conditions that form part of the Formal Contract to be executed between I/us and the Institute. The same shall be binding upon me/us upon being declared as the Successful Bidder.

Place:

Signature of Bidder

Date:

With the seal of their company

SECTION-‘D’

PRE-QUALIFICATION CRITERIA

Pre-Qualification Documents to be submitted by Bidder along with Pre-Qualification Bid:

The Agencies that fulfill the following requirements shall be eligible to apply:

- a) Copy of Registration of company Certificate of Incorporation of company or Partnership deed.
- b) Copy of Registration of Goods & Service Tax and PAN
- c) Copy of OEM authorization letter / certificate (Check whether it is required)
- d) The bidder should have an average annual turnover of INR 10 lakh in the last 3 financial years. Submit copies of audited Balance Sheet and Profit & Loss account /CA Certificate for the last three years.
- e) The bidder should have experience in successful execution of similar work of SITC of generator in the last 3 years at least 01 similar work of value not less than Rs. 3.2 Lakh OR ii) at least 02 similar works of value not less than Rs. 2 Lakh OR iii) at least 03 similar works of value not less than 1.6 lakh at any reputed organization. References order copy along with proof of completion certificate for the project must be provided.
- f) The bidder should not be black listed by any Govt. organization /PSU during the last 3 years. A declaration certificate to this effect is to be submitted as per the format given in Annexure-A.
- g) Either the Registered Office or one of the Branch Offices of the bidder should be located in territory areas of Greater Mumbai, Mumbai suburban, Thane and Navi Mumbai districts.

Bidders must submit documentary proof in support of meeting each of the above minimum qualification criteria. A simple undertaking by the bidder for any of the stated criteria will not suffice the purpose. All documentary proof must be listed on the letter head of the company, to be submitted along with the qualification bid duly stamped and signed by the authorized person of the agency.

- **Information to be furnished by the bidder:**

Sr. No.	Item	Information to be filled by Bidder
1	Name of the bidder	
2.	Address	
2	Telephone Number: Office: Mobile Number of contact person/account manager Fax No. E-Mail address-	
3	Details of Registration (number & date)	
4	Month and Year in which the firm / company was formed/ incorporated.	
5	Type of organization (Sole Proprietor, Partnership, Pvt. Ltd., Public Ltd., etc.)	
6	Enclose copy of partnership deed, Articles of Association or Affidavit (in case of firm)	
7	Average Annual Turnover of Last Three Financial Year (attached audited balance sheet & profit & Loss account)	FY 2019-20 FY 2018-19 FY 2017-18

SECTION-‘E’
TECHNICAL BID

I. Scope of Work:

“Supply, Installation, Testing and Commissioning of 20 kVA DG Set at IGIDR, Mumbai”

The scope of above work shall include the following:

1. Designing of details of DG set foundation and its construction, placement of DG set with acoustic enclosure, Auto Start/Stop panel (AMF) etc. along with all accessories/ components.
2. Supply and Delivery of DG set with Acoustic enclosure and Auto Start/stop panel and associated cabling, earthing, safety items including packing, handling, transporting, clearing, loading/unloading etc. to IGIDR, Mumbai.
3. Erection, testing & commissioning of DG set as per technical specifications, obtaining operating approval from Electrical inspectorate and handing over the DG set to IGIDR for use.
4. Providing all-inclusive service including all spares, etc. during warranty period of new DG set.
5. All engineering, equipment, labour, and permits required for satisfactory completion of DG set installation work as per Specification.
6. Any other ancillary work, related to but not mentioned above, required for satisfactory completion of the job.
7. Obtaining all statutory permissions/license from appropriate authorities.
8. Unless otherwise in the tender documents, the following work shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost, whether specifically indicated in the schedule of work or not:
 - a. Foundations for equipment including vibration isolation springs/pads.
 - b. Making good all damages caused to the structure during installation and restoring the same to their original finish.
 - c. Minor building work necessary for installation of equipment, foundation trench for fuel line and cable, making of opening in walls or in the floors and restoring them to their original condition/ finish and necessary grouting etc. as required. Debris if any shall be disposed of outside the institute premises to the area marked by Municipal authorities for this purpose.
 - d. All supports for exhaust and water pipes, chimney, cables, anti-vibration pads etc. as are necessary.

- e. All electricity work and neutral earthing, body earthing, required for engine and alternator, main board/control panels and control wiring including loop earthing, if specified in schedule of work should be done confirming to relevant BIS.
- The entire electrical installation work shall be carried out in general conformity with the requirements of the Indian Electricity rules, 2003, the relevant I.S. codes of practice, as amended to date, wherever applicable and the regulations of the local licensing bodies, CEA, CPB, Electrical safety inspector etc., and where such installations are subject to inspection and approval of fire insurance, the installation shall be planned and executed also confirming to their regulations/rules.

- **Earth Terminals:**

Construction of 2 Nos. of earth pits (terminals) on opposite sides with vibration proof connections, non-ferrous hardware etc. with galvanized plate and passivated washer of minimum size 12 mm dia. Hole shall be provided along with necessary termination and testing.

- **Testing:**

All major equipment/items i.e. engine & alternator in assembled condition, electrical control panel etc. may be offered for initial inspection at factory/manufacturers work, before dispatch at site of work at the discretion of IGIDR. After inspection of these items shall be cleared for dispatch at site.

Copies of all documents of routine and type test certificates of the equipment, carried out at the manufacturers premises shall be furnished to IGIDR.

After completion of the installation work in all respects, the contractor shall offer the DG sets for testing. Testing shall be carried out as under:

The DG set shall be tested on load of Unity Power Factor for the rated KW rating. During testing, the DG set shall be operated for 12 hours for DG set's KW rating including one hour on 10% overload after continuous run of the 12 hours. During testing, all control and safety operations shall be checked and proper record will be maintained. Any defect/ abnormality noticed during the testing shall be rectified. The testing will be declared successful only when no abnormality/ failure is noticed during the testing. The DG set will be cleared for dispatch to site only when the testing is declared successful by authorized representative.

- **Trial Run/ Running-in-Period:**

After successful testing of the DG set, trial run at available load will be carried out for 120 Hrs or 15 days whichever is earlier. The DG set will be operated and a log of the relevant parameters will be maintained during this period. The arrangement of staff for the trial run shall be made by the successful tenderer. However,

the diesel and lube oil required will be supplied by IGIDR. The contractor will be free to carry out necessary adjustments. The DG set will be said to have successfully completed the trial run, if no break down or abnormal/ unsatisfactory operation of any component of the entire installation included in the scope of work of the contract, occurs during this period. After that the DG set will be taken over by IGIDR subject to warranty clause of the contract. This date of taking over the DG set, after trouble free operation during the trial run/running-in-period, shall be the date of acceptance /taking over.

- **Drawings/Documents to be furnished on completion of installation:**

Two sets of the following laminated drawings shall be submitted by the contractor while handing over the installation to IGIDR.

- a. DG set installation drawings giving complete details of all the equipment, including the foundation.
- b. Line diagram (SLD) and layout of electrical control/AMF panel giving switchgear ratings, cable feeder sizes and their layout.

II. Technical Specifications:

- **Note 1. These specifications are not meant to be exhaustive and prescribe the minimum acceptable standards. Where these do not cover certain items and aspects, the best engineering practice/IGIDR engineer's instructions shall be followed.**
- **Note 2. All codes and standards means the latest. Necessary I.S. Codes are mentioned along with these specifications and all relevant codes with divisions published on date shall be applicable.**

A. TECHNICAL SPECIFICATION FOR DG SET:

1. ISO-8528- Part-1 to 10, applicable for generating sets
2. IS- 1000- Part-1 to 13, 1980 applicable naturally aspired engines
3. BS-5514-Part-5-1979, IS-13018 & BS-649 Reciprocating internal combustion engines, Performance, torsional vibrations
4. ISO-3046-Part-5-2001, Part-1-2002, Part-3-1989, Part-4-1997, Part-6-1990, IS 60034
5. IS-4889/BS-269, IS-4722-1992, IS-13364-part-1&2-19992, IEC-34-1-1983, BS 2613/1970, IS 4889, IP-21 as per IS-4691/85 applicable to Alternator
6. IS-8183, ISO-3744-1988 (E), ISO-8528- Part-10-1998 (E), ISO-9614-1993-Part-1, 2 applicable for acoustic enclosure
7. IS-2147-1962 and IS-4722 applicable for control panels.
8. IS-1460: Automotive Diesel Fuel.

9. IS/IEC 60034-1: Rotating electrical machines.
10. ISO 9001
11. IS 13018: Internal Combustion Engine.

B. Diesel Engine:

The engine shall be the standard design of the original manufacturers. It should be 4-stroke, water cooled, naturally aspirated/ turbo charged as per manufacturer standard, diesel engine developing about 80.1 BHP for giving a power rating in kVA at the load terminals of alternator at 1500RPM at actual site conditions as above. The engine shall be capable of delivering specified prime power rating at variable loads for PF of 0.8 lag with 10% overload available in excess of specified output for one hour in every 12 hours. The average load factor of the engine over a period of 24 Hours shall be 0.85 (85%) for prime power output.

The engine shall be fitted with the following accessories subject to the design of the manufacturer.

1. Dynamically balanced flywheel.
2. Necessary flexible coupling and guard for alternator and engine.
3. Air cleaner (dry/oil bath type) as per manufacturer standard.
4. Governor of class G2 and shall be self-contained unit capable of monitoring speed.
5. Daily fuel service tank with minimum capacity of 80 Litres, fabricated from MS sheet with inlet, outlet connections, air vent tap, drain plug and level indicator (gauge), Stainless steel fuel piping from tank to engine with valves, unions, reducers, flexible hose connection and floor mounting pedestal, twin fuel filters and fuel injectors. The fuel tank shall be located inside the acoustic enclosure itself.
6. Dry exhaust manifold with suitable exhaust residential grade silencer to reduce noise level.
7. Suitable self-starter for 12 V/24 V DC.
8. Battery charging alternator unit and voltage regulator, suitable for starting batteries, battery racks, interconnecting leads and terminals.
9. Battery charger.
10. Necessary gear driven oil pump for lubricating oil, priming of engine bearing as well as fuel systems as per manufacturer's recommendations.
11. Naturally aspirated/ turbo charger (as per manufacturer standard).
12. Lubrication oil cooler.
13. Lubrication oil filters with replaceable elements.
14. Crank case heater as per standards.
15. Fuel injection system to minimize the fuel consumption.
16. Fuel control solenoid.
17. Fuel pump with engine speed adjustment.
18. Electronic engine management control panel: fitted and having digital display for following:
 - a) Start/stop key switch
 - b) Lube oil pressure indication
 - c) Water temperature indication
 - d) RPM indication
 - f) Engine hours indication
 - g) Battery charging indication

- h) Low Lube oil trip indication
 - i) High water temperature indication
 - j) Over speed indication
19. All moving parts of the engine shall be mechanically guarded with M.S. mesh guard in such a manner that a human finger cannot touch any moving part.
20. Radiator
21. Any other item not mentioned/ specified but is a standard design of the manufacturer.

C. Alternator:

Self-excited, screen protected self-regulated, brush less alternator, horizontal foot mounted in single bearing construction with following specifications.

Rated PF	: 0.8
Rated Voltage	: 415
Rated Frequency	: 50
No. of phases	: 3
Enclosure	: SPDP
Degree of Protection	: IP-23
Ventilation	: Self ventilated, air cooled
Insulation class	: F/H
Voltage Regulation	: +/- 1%
Voltage Variation	: +/- 5%
Type of AVR	: Electronic (soft)

DG set should be type tested for noise and emission norms/ standards as per latest CPCB norms.

D. Protection:

In the event of any fault due to over voltage/ high bearing temperature/ high winding temperature, or an external fault, the AVR shall remove the excitation voltage to the alternator. An emergency trip PB shall also be provided which is located outside the acoustic enclosure.

E. Performance:

Voltage dip shall not exceed 20% of the rated voltage for any step load or transient load. The winding shall not develop hot spots exceeding safe limits due to imbalance of 20% between any two phases from no load to full load. The generator shall preferably be capable of withstanding a current equal to 1.5 times the rated current for a period of not more than 15 seconds.

F. Auto Mains Failure (AMF) Panel:

- 1. Engine Control panel will be provided inside the acoustic enclosure.

2. AMF Panel will be fabricated out of 1.6mm CRCA sheet totally enclosed, dust, damp and vermin proof with IP 42.

The same shall be equipped with following.

1. 1 no MCCB of suitable rating with built in thermal over load and magnetic short circuit releases, front operating handle with door interlock and shunt trip coil suitable for 230V AC.
2. 1 no Electronic KWH meter
3. 1 No electronic PF meter
4. 1 No electronic frequency meter
5. 1 No electronic earth fault relay
6. 1 no MCB of suitable rating for potential circuit
7. 3 Nos. Resin Cast CTs of ratio required ratio and class-1, 10 Va for metering
8. 3 Nos. LED type indication lamps for RYB indications
9. Push button for manual start and stop
10. Air break contactor of adequate rating
11. 1 No battery charger with all instruments and protection to charge the starting battery from external source.
12. The microprocessor (PLC) based engine management system module to read all the engine conditions like oil pressure, water temperature, RPM, Hour run, will be fixed in this panel with required internal cabling from engine. Any abnormal condition should trigger and followed by tripping of the engine. This also will have AMF logic to sense Mains supply and give command to start and stop the engine with time delay and auto manual switch.

G. Fuel tank:

Fuel tank of minimum capacity of 80 Ltrs shall be located at the bottom of the unit with provision for filling and fitted with gauge. The same shall be fabricated out of 3mm thick HR sheet.

H. Starting battery:

80-100 Amh battery shall be as required at 24/12V DC. Batteries supplied with DG set shall be dry and uncharged. The same shall be charged by authorized people before same is connected to DG set. Initial charging shall be done for 72-80 hrs. The batteries shall be placed on stands and relatively cool place inside the acoustic enclosure.

I. Platform for mounting of DG set:

A PCC foundation platform (1:2:4, M-20 grade) of weight 2.5 times of the operating weight of DG set and of approximate depth of 200 mm below ground surface and height of 150mm above ground surface is required so as to provide leveled surface for placement of the acoustic enclosure.

J. Acoustic enclosure (Sound Proof Canopy):

1. The acoustic enclosure shall be designed and manufactured confirming to relevant BIS suitable for outdoor installation exposed to weather conditions, and to limit overall noise level to 75dB (A) at a distance of 1 Mt from the enclosure as per CPCB norms under free field conditions, at 75% load.

2. The construction should be such that it prevents entry of rain water splashing into the enclosure and allows free and quick flow of rain water to the ground in the event of heavy rain. The detailed construction shall confirm to details as under.
 3. The enclosure shall be fabricated out of CRCA sheet of thickness not less than 1.6mm on the outside cover with inside cover having not less than 0.6mm thick perforated powder coated CRCA sheet.
 4. The hinged doors shall be made from not less than 16 SWG (1.6mm) thick CRCA sheet and will be made airtight with neoprene gasket and heavy duty locks.
 5. All sheet metal parts should be processed through 7-tank process. The enclosure should be powder coated Green color. The enclosure should accommodate the daily service fuel tank. There should be a fuel gauge which should show the level of fuel even when DG set is not running. The gauge should be calibrated. The fuel tank should be filled from outside provided with a lockable cap. The batteries should be accommodated in the enclosure in the rack.
 6. The canopy should be provided with high enclosure temperature safety device. The acoustic lining shall be made of high quality insulation material like glass wool/ mineral wool/ rock wool with minimum of 50mm thick and 75 Kg/cubic mtr for sound absorption as per standard design of manufacturers to reduce the sound level as per CPCB norms. The insulation material shall be covered with fine glass fiber cloth and would be supported by perforated MS sheet duly powder coated.
- The enclosure shall be provided with suitable size and no of hinged type doors along the length of the enclosure on each side for easy access inside the acoustic enclosure for inspection, operation and maintenance purpose. Sufficient space will be provided inside the enclosure on all sides of the DG set for inspection, easy maintenance and repairs.
- The MS base frame shall be provided having lifting facility & predrilled foundation holes for installation on anti-vibration mounting (AVM pads).

K. Technical specifications for Electrical and Control panels:

The fabricated panels used for this project shall be generally wall mounted, fabricated out of 16 SWG CRCA and powder coated after undergoing 7-tank treatment process. The panel shall be cubicle type with Neoprene gasketed and hinged outer door with locking facility. All the components like contactors, MCBs etc shall be mounted on an MS mounting plate fixed inside the panel which can be removed in case of any defects which needs rectification or replacements of components. The components shall be fully wired and tested for correct sequence of operation. The MCB shall be mounted in such a way that their operating knobs shall be accessible after opening the outer door. The panel shall be designated with a label at the top of the panel in a permanent manner. The outer door shall be earthed to the main body through a flexible copper wire. Removable gland plates shall be provided at the top and bottom of the panel for external cable terminations.

PREFERRED MAKE OF MATERIAL

S.N	Description	Make-1	Make-2	Make-3	Make-4
1	DG set	Cummins	Mahindra	KOEL i Green	CSH
2	MCB	Legrand	L&T	Schneider	ABB
3	MCB DB	Legrand	L&T	Schneider	ABB
4	MCCB	L&T	Crompton	Siemens	Legrand
5	Contactora	Legrand	L&T	Siemens	ABB
6	Meters	Rishabh	Trinity	AVE	A.E.
7	LED indication lamp	Technique	Schneider	Siemens	L&T
8	Cables/wires	Polycab			

NOTE: Bidder may supply equipment of any other make not mentioned above with the prior approval of IGIDR.

Makes offered by the bidder

S.N	Description	Makes offered
1	DG Set	
2	MCB	
3	MCB DB	
4	MCCB	
5	Contactora	
6	Maters	
7	LED indication lamp	
8	Cables/wires	

SECTION-‘G’
FINANCIAL BID

(To be submitted on company/Firms Letterhead)

NIT No: IGIDR/Tender/2020-21/CC/06

Name of work: SITC of 20 kVA DG Set at IGIDR, Mumbai

S.N.	Description	Quantity	Unit	Unit Rate (Rs.)	Total Amount (Rs.)
1	Supply of 20 kVA DG set with AMF panel & acoustic enclosure	1	No.		
2	Installation, Testing & Commissioning of 20 kVA DG Set with foundation, construction of earthing pits (terminals) & terminations as per specifications given in the tender.	1	No.		
A- Total Amount (Rs.)					
GST (%)					
B- GST Amount (Rs.)					
Grand Total with GST in Rs. (A+B)					

In words:

Note: Above rates shall include GST, all applicable taxes, fees, duties, levies, transportation charges, insurance charges, installation charges, material charges, labour charges and all other charges required for the successful completion of work.

Date:

Sign & Stamp of bidder

Annexure - A

FORMAT OF UNDERTAKING, TO BE FURNISHED ON COMPANY LETTER HEAD WITH REGARD TO BLACKLISTING/ NON- DEBARMENT, BY ORGANISATION UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT

To,
The Registrar
Indira Gandhi Institute of Development Research
Film City Road, Santosh Nagar,
Goregaon (East),
Mumbai – 400 065.

We hereby confirm and declare that we, M/s -----, is not blacklisted/ De-registered/ debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services during the last 5 years.

For M/s _____

Authorized Signatory

Date: