#### **Tender Notice**

National Small Industries Corporation Limited
NSIC Bhawan
Okhla Industrial Estate
New Delhi-110020
Tel: 011-26826941/26826847

Email: tech@nsic.co.in

Tender no.: SIC/HO/TID/DI/15-10 Date: 3<sup>rd</sup> February, 2015

## Subject: Supply & installation of one set of 15KVA Diesel Generator.

NSIC is setting up Training cum Incubation Centre for Small Enterprise Establishment at Deoria, Uttar Pradesh.

We are pleased to invite your offer in two parts viz. (a) Technical and (b) Financial, strictly as per enclosed terms and conditions and instructions to bidders, in sealed covers for the under mentioned plant and machinery / equipment required for setting up of Incubation Centre at Deoria, Uttar Pradesh consisting of the following:

SI. No.	Description	Qty.
1.	Supply, installation, testing and commissioning of silent type Diesel Generating Set having prime power of 15 kVA, 3 Phase, 50HZ, 415 Volt at 1500 RPM. The machine shall have capability to run continuously in variable load condition for unlimited hours and should have 10% overload capacity of one hour in every 12 hours of operation.  Engine  Diesel engine (Engine model X series coupled to 415 V) shall be direct Injection Water Cooled, 4 strokes, 1500 RPM of suitable BHP Capable of giving above mentioned output of Alternator. Engine will be fitted with all the required accessories. The average load factor of the engine over period of 24 hours shall be 0.8 for prime power output. The engine shall conform to IS:10000/ISO, 3046/BS, 649/BS 5514 amended upto date.	1 No.

#### **Starting System & Accessories.**

- a) Electrical starter motor 12V DC
- b) Battery charging alternator
- c) Bosch fuel system with mechanical governor, A1 Class
- d) Spin-on fuel filter
- e) Spin-on lube oil filter
- f) Silencer (Critical grade)
- g) Dry type air cleaner
- h) Recovery bottle
- i) Shut-off coil
- j) Flywheel and flywheel housing
- k) First fill of lube oil and coolant
- I) Safety for low lube oil pressure
- m) Safety for high water temperature
- n) 500 hrs/6 months service interval
- o) Permissible overload of 10% for one hour in 12 hours of operation
- p) External fuel filling arrangement
- a) Flywheel Housing
- r) Flywheel
- s) Anti-vibration pads
- t) Base rail with integral fuel tank with level indicator provided with drain plug for drainage and air vent / breather and inlet and outlet connection with cleaning provision (Man hole)

#### **Alternator:**

- 1. Rating: 15 kVA
- 2. Power factor: 0.8
- 3. Rated Generating Voltage: 415 Volts
- 4. Voltage regulation: +/- 1% all load between no load to full load & factor 0.8 to unity
- 5. Frequency : 50 Hz
- 6. Speed: 1500 RPM
- Class of insulation: H
- 8. Overload capacity: 10% for one hour in any 12 hours of operation without exceeding temperature rise limits specified in BS:5000/ IS4722 when corrected to ambient temperature at site.
- 9. Enclosures: Drip proof & screen protected IP-23
- 10. The alternator shall be of self-excited, self regulated through AVR, self ventilated in

brushless design, provided with suitable automatic voltage regulator.

#### **Acoustic Enclosure**

The acoustic enclosure is made of 1.6/2mm thick CRCA sheets and structural/sheet metal base frame duly painted. The walls of the enclosure are insulated with fire retardant foam so as to comply with the 75dba at 1 mtr sound levels specified by Ministry of Environment & Forest.

- 1. Shall be suitable to suit stringent Ministry of Environment and Forest (MOEF)/ Central Pollution Control Board (CPCB) norms of 75 dBA at a distance of 1 meter from the enclosure.
- 2. Removal of Filters etc should be easy Ease of serviceability is important.
- 3. Air inlet lowers specially designed to operate at rated load even at 50 deg ambient or air inlet temperature.
- 4. Power coated for long lasting service life and superior finish.
- 5. With UV resistant powder coating, can withstand extreme environments.
- 6. Hardware should be rust free. Should be Stainless steel.
- 7. Insulation material shall be as per relevant IS3 specifications.

# Engine mounted instrument panel fitted with and having digital display for the followings:-

- 1. start-stop switch with key
- 2. water temperature indication
- 3. lubrication oil pressure indication
- 4. lubrication oil temperature indication
- 5. battery charging indication
- 6. RPM Indication
- Over speed indication
- 8. Low lube oil trip indication
- 9. Engine hours indication

#### **Fuel Tank:**

Daily service Fuel tank of suitable capacity for minimum 8 hours of operation, fabricated out of MS Sheet complete with all accessories and fuel piping between fuel tank and diesel engine with MS C-Class pipes of suitable dia complete with walls, level indication and accessories as required.

#### **Base Frame and foundation**

Both the engine and alternator shall be mounted on suitable base frame made of MS Channel with necessary reinforcement which shall be installed on suitable cement concrete foundation and vibration arrangement as per recommendations of manufactures.

#### **AMF Panel:**

The panel is manufactured with 14/16 gauge CRCA sheet and is powder coated for a weather proof long lasting finish.

The control panel consists of following parts:

- 1. Microprocessor Based integrated Generator Set Monitoring, Metering, Protection and electronic governing system.
- 2. Multi function meter which measures:
  - 1) Individual phase current (Amps)
  - 2) Phase voltages (V)
  - 3) kVA/ kWe
  - 4) Generator output frequency (Hz)
  - 5) Engine water temperature (Deg.C)
  - 6) Lube oil pressure (kg/cm2)
  - 7) Running hours
  - MCB of suitable rating
  - Key switch
  - Push button (Starter)
  - LED: Battery charging alternator fail indication
  - Current transformers
  - Instrument fuses duly wired and ferruled
- 3. Operator Interface
  - Manual Start Stop
  - Remote Start Stop
- 4. MCCB of suitable rating
  - 1 set of CTs for Metering
  - Key switch
  - Metering

	Ammeter	
	• Voltmeter	
	<ul> <li>Frequency meter</li> </ul>	
	KWH meter	
	<ul> <li>KW/ PF MeterBattery Charger</li> </ul>	
	<ul> <li>One Battery charging transformer/ rectifier unit</li> </ul>	
2.	Earthing with G.I. earth pipe 4.5 mtr long, 40 mm dia	4 Nos
	i/c accessories and providing masonary enclosure	
	with cover plate having locking arrangement and	
	watering pipe etc with charcoal and salt as reqd.	
3.	Supplying and laying 25mmx3mm G.I.Strip at 0.50	10
	metre below ground as strip earth electrode i/c	mtrs.
	soldering etc as reqd	
4.	Supplying and laying 6 SWG G.I. wire on surface or in	10
	recess for loop earthing along with cable as required.	mtrs.
5.	Supply & laying of one number PVC insulated control	20
	cable of 1.1 KV Grade of size 2.5 sqmm 10 core	Nos.
	copper cable	
	make: Havells/Gloster	
6.	Supply and laying of XLPE insulated PVC Sheathed	20
	Aluminum conductor armored cable of 1.1 KV Grade of	Nos.
	4x35 sqmm size as required. Make: Havells/Gloster	
7.	Supply and laying interconnection cable	1 No.
8.	Supply and fixing exhaust gas piping of suitable dia	12
	welded black MS, A-Class pipe cut to required lengths	mtr
	and installed with necessary bends, supports and	
	clamps, anti-vibration mountings, insulation of	
	exhaust system with aluminum cladding as required	
	as per specifications	
9.	Supplying and making end termination with brass	1 No.
.	compression gland and aluminium lugs for 4x35	
	sqmm size PVC Sheathed Aluminium conductor cable	
	of 1.1 KV Grade as regd.	
	or it is draue as requi	

The detailed tender document can be obtained free of cost from Chief Manager (TID) at the above address. The tender document can also be downloaded from NSIC website <a href="www.nsic.co.in">www.nsic.co.in</a>. Any clarification on technical specifications can be obtained in writing from NSIC before tender opening. Manufacturers are welcome to have pre-bid meeting with NSIC for better understanding our requirements.

Please submit your lowest quotation / offer for the above requirement subject to our terms and conditions. Your offer should be submitted to General Manager (TID), National Small Industries Corporation Limited, NSIC Bhawan, Okhla Industrial Estate, New

Delhi-110020 latest by 19<sup>th</sup> February, 2015 till 5:00 P.M. Offers received after the last date and scheduled time shall not be considered.

The format for technical bid and financial bid shall be as per Annexure-I and Annexure-II respectively. The offer should be submitted with a covering letter as per format at Annexure-III in a sealed envelope clearly mentioning the above tender number on top of the envelope.

The technical bid shall be opened on 20<sup>th</sup> February, 2015 at 2:30 P.M. in the presence of authorized representatives of the bidders who may like to be present. The authorized representative should bring authority letter from their principals for attending the bid opening.

**Note:** The vendor should submit their best price while submitting their bids itself and they will not be allowed to revise the price any time thereafter.

NSIC reserves the right to reject one or all of the bids without assigning any reasons.

KINDLY READ ALL TERMS AND CONDITIONS OF "TENDER DOCUMENT" THOROUGHLY. QUOTATION NOT IN ACCORDANCE WITH THE TERMS AND CONDITIONS IS LIABLE TO BE DISQUALIFIED AND IGNORED.

General Manager (TID)

#### **Important Instructions to bidders for submission of tender**

#### 1) Preparation of Bids:

The bids should be prepared in the following manner:-

- a. The Bid shall be neatly arranged, plain and intelligible.
- b. Each page of the bid should be signed by the authorised person. Letter regarding the authorisation of such person should be obtained from the Principal / Manufacturer and enclosed with the bid.
- c. Insertions, postscripts, additions and alterations shall not be recognized, unless confirmed by bidder's signature.
- d. Bids should not contain any terms and conditions, printed or otherwise, which are not applicable to the Bid.
- e. Any conditional bid not adhering to the terms & conditions of the tender or part bid shall be rejected.
- f. The bidder should be the Principal / Original manufacturers / Authorised dealers (who carry Authorisation certificate from Principal Manufacturer) of plant & machinery/ equipment, failing which the quotation shall not be considered.
- g. The bidders should have executed at least three purchase orders / contracts of equivalent value in the last five years. The bidder is required to submit catalogue of the plant & machinery/ equipment, complete reference of the past supply of equipment for the same or similar specification giving details of customer with name of the contact person, Fax no, phone no, E-mail.
- h. The bidders will have to submit ink-signed offer / bid in original to NSIC. **Bids not complying with this condition shall not be considered**.
- i. In the Financial Bid, prices are to be indicated in both figures and words. In case of any discrepancy of value the prices quoted in words shall be considered for evaluation and establishing L1 status.
- j. No price variation clause will be entertained.

- k. Specifications are the basic essence of the "Product". Mere copying of the tender specifications by the Bidder into their bids shall not make them eligible for consideration. Appropriate and sufficient evidence of conformity by way of data (catalogues etc.) shall be furnished. There should be an item-by-item commentary on the Specifications demonstrating responsiveness of the offered equipment to the specifications.
- I. Bid with any pre-conditions (like conditional discounts) for price are liable to be "Not considered/Rejected".

#### 2) Submission of Bids:

- a. Bids must be received by NSIC on or before the due date and time at the address specified in the tender document. In the event of the specified date for the submission of bids being declared a holiday for NSIC, the bid-closing deadline will stand extended to the next working day up to the same time.
- b. Any bid received by NSIC after the deadline for submission of bids, will not be accepted and returned unopened to the bidder.
- c. NSIC at its discretion may extend the deadline for the submission of bids if the bid document undergoes changes during the bidding period, in order to give prospective bidders time to take into consideration the amendments while preparing their bids.
- d. In case of receipt of inadequate numbers of bids, NSIC may extend the deadline for submission of bids giving opportunity to other bidders to participate in the bidding process to make it competitive.
- e. If the Supplier submits only one envelop / cover containing all the bids or combined bids e.g. techno-commercial bid & price bid together, the bid is liable for rejection.

**NOTE:** The manufacturers should submit their best price at this stage itself and they will not be allowed to revise the price. Any revision / discount given by manufacturers subsequently will be ignored.

#### 3) Amendment of Bidding Documents:

- a. At any time prior to the deadline for submission of bids, NSIC may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder, modify the bid document.
- b. All prospective bidders who have requested for the bidding document will be notified of the amendment in writing, and such amendments/ modifications will be binding on them.

#### 4) Bid opening and evaluation of Bids:

- a. The technical bids shall be opened on 20<sup>th</sup> February, 2015 at 2:30 P.M.
- b. Bidder whose technical bid is qualified based on the eligibility criteria as specified in this tender document will be considered for financial bid evaluation. The date and time of opening of the financial bid will be informed to such bidders.
- c. NSIC will open financial bids of only the technically qualified, in the presence of the bidders or their authorised representative who choose to attend the bid opening.
- d. The bidder's authorised representative who attends the bid opening shall sign an attendance register as a proof of having attended the bid opening.
- e. The bidder's name, bid prices, discounts and such other details will be announced at the time of opening of the financial bids.

#### 5) Award of Contract

- a. The financial bids of the technically qualified bidders shall be opened by the constituted committee. Thereafter the committee shall prepare the comparative statement (CST) based on the FOR, Deoria, Uttar Pradesh price quoted by the bidders. This will facilitate to shortlist the L-1 bidder quoting the lowest price.
- b. L-1 will be decided on the basis of total value of the bid.

- c. NSIC shall award the contract to the eligible bidder whose financial bid has been accepted and determined as the lowest evaluated financial bid.
- d. If more than one bidder happens to quote the same lowest price, NSIC reserves the right to award the contract to any one bidder.
- e. Supply order shall be placed for supply and installation of machinery and equipment required at Deoria. The bidder shall deposit 'Security Deposit' for Rs. 15,000/-(Rupees Fifteen Thousand only) for supply orders placed.
- f. The successful bidder, on award of contract/order, must send the contract/order acceptance in writing, within 7 days of award of contract/order, failing which the EMD will be forfeited.

# 6) <u>Interpretation of the clauses in the Tender Document / Contract Document</u>

In case of any ambiguity / dispute in the interpretation of any of the clauses in this Tender Document, NSIC's interpretation of the clauses shall be final and binding on all parties.

#### 7) <u>Earnest Money Deposit:</u>

- a. The units registered with Central Purchase Organization (DGS&D), National Small Industries Corporation (NSIC) or the concerned Ministry or Department shall be exempted from the payment of Earnest Money as defined under Rule 157 of General Financial Rules (GFR), 2005.
  - In such case, copy of the certificate showing registration with the above mentioned institutions to be enclosed alongwith the Technical Bid.
- b. In case, the unit is not covered under a. above, it should submit the offer along with Earnest Money Deposit (EMD) for Rs. 15,000/- (Rupees Fifteen Thousand only) by way of Demand Draft (DD) drawn in favour of "National Small Industries Corporation Limited" payable at New Delhi. No cash / cheque towards EMD shall be accepted. The DD for EMD should be placed inside the envelope containing technical bid. The offers without EMD shall be rejected.

- c. The EMD of unsuccessful bidder shall be refunded within 30 days from the award of contract.
- d. No interest will be allowed for earnest money deposited with the Company.
- e. The EMD shall be forfeited:
- 1. If the bidder withdraws the bid during the period of bid validity specified in the tender.
- 2. If the successful bidder fails to furnish the acceptance in writing, within 7 days of award of contract/order.

#### 8) <u>Security Deposit</u>

- a. The EMD of successful bidder shall be kept as 'Security Deposit' for supply of goods against each supply order and shall be released at the time of final payment after successful completion of work.
- b. In case of bidder exempted from payment of EMD (as mentioned in Para 7 a. above), 'Security Deposit' for Rs. 15,000/- by way of demand draft/cheque in favour of "National Small Industries Corporation Limited" payable at New Delhi should be submitted alongwith order acceptance against each supply order.

#### 9) Prices:

All items are to be quoted in INR only in the format as per Annexure-II. The price quoted should be inclusive of wooden box packing, insurance and freight on FOR, Deoria, Uttar Pradesh basis. **The prices should also be inclusive of all taxes and duties as applicable**. The price quoted shall be considered firm and no price escalation shall be permitted.

#### 10) Validity of the Quote:

The validity of quote should be at least six months (180 days) from the closing date of tender. A bid valid for a shorter period shall stand rejected.

NSIC may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in writing only. A bidder agreeing to the request for extension will not be permitted to modify his bid.

#### 11) Delivery period:

The goods shall be delivered to NSIC's representative at NSIC – TIC, Deoria within 30 days from the date of award of contract. Part delivery shall not be permitted. Separate dispatch instruction shall be issued after inspection of goods and acceptance thereof by NSIC. No other delivery terms shall be acceptable.

#### 12) Taxes / Duties:

- a. The bidders should be registered with sales tax / income tax department of Govt. of India and should hold a valid VAT registration certificate, as applicable.
- b. Sales tax, excise duty, VAT, octroi or any other tax shall be paid on actual as per rule applicable and on production of documentary proof.

#### 13) Payment terms:

- a. 80% of order value to be released on submission of following documents:
  - i. Signed commercial Invoice-two copies certifying that the goods are exactly as per the purchase order and the specification quoted.
  - ii. Proof of delivery of the consignment to our representative at Deoria
- iii. Clean report of findings issued by NSIC.
- iv. Packing list two copies duly signed.
- Balance 20% order value shall be released after successful installation and commissioning of equipment at site at Deoria.

#### 14) Packing & Marking:

Consignment must be packed in strong wooden box cases, taking all precaution against damage during handling and transportation to final destination.

Proper marking on the packing cases should be made for smooth handling of consignment.

Every package delivered under our order shall at the expense of the supplier be distinctly marked with description and quantity or contents with the consignee name and address with gross weight and net weight, with the distinctive number and mark which is also to be shown for the purpose of identification on the suppliers packing account.

Each packet shall contain a packing note quoting a number and date of our order and showing its contents in detail.

#### 15) Pre-Despatch Inspection:

The plant and machinery / equipment to be supplied and packing thereof shall be subject to inspection by NSIC or third party (name shall be conveyed to the successful bidder) at manufacturer's premises prior to dispatch thereof. Approval and clean report of findings shall be submitted at the time of claiming payment. Machinery & equipment including packing boxes shall be offered by the awarded unit for inspection at least 10 days before the stipulated date of delivery. Deviations, if any pointed out by the visiting inspection team, as mentioned above, shall be corrected and the machinery and equipment as per specification shall be dispatched on or before the contract delivery date.

The quality of machinery / equipments / tools / spares / raw materials shall be of good quality. In case quality of goods found to be inferior during inspection, the whole consignment or part thereof shall be rejected without assigning any reasons. Accordingly, the supply order shall be treated as cancelled without any liability on NSIC.

#### 16) Liquidated damages:

In the event of delay in supply of the goods within the stipulated period, Liquidated Damages (LD) shall be charged by NSIC @ ½% (one-half of one percent) of the total order value per week of delay or part thereof subject to a maximum of 5 (five percent) of the order value. Supplier shall deduct the applicable LD from the first payment while raising the claim for the same.

#### 17) Insurance:

All goods are to be insured for 110% of the FOR value of the goods by successful bidder from the works to Deoria warehouse.

#### 18) Installation & Commissioning:

- a. The awarded bidders shall have to depute expert(s) for installation & commissioning at site as and when instructed by NSIC.
- b. No additional charges shall be payable for installation & commissioning of equipment at site.
- c. The supplier has to inform in advance about the material handling facilities to be arranged by host country for successful installation, commissioning, training and pilot production from the machines and equipments supplied.
- d. Time and manpower required (skilled / unskilled) for Erection & commissioning should be clearly given in terms of working days and number respectively.
- e. The supplier will be required to train to the operators as decided by NSIC for at least 7 days.

#### 19) After Sales Service / Warranties by Suppliers:

The equipment shall be warranted for any manufacturing defect for a period of 12 months from the date of successful completion of installation and commissioning at site. Should any part or parts fail or proved defective within the period specified above, owing to defect in design, material or workmanship, the supplier will have to replace them at the place of installation free of all charges.

During the warranty period, expert(s) shall be deputed at site by the awarded unit whenever found essential and which cannot be undertaken locally or by the NSIC's experts including rectifying any defect / malfunctioning of plant & machinery. The cost of deputation of expert(s) and any other associated expenditure shall be borned by the awarded unit.

#### **20)** Technical Documents:

The awarded unit shall provide technical documents like operation and maintenance manual etc. in English language in three copies for each items of equipment. Two copies to go with the consignment, one copy to be forwarded to NSIC office.

#### 21) Risk Purchase:

In case of delays in supplies / defective supplies or nonfulfillment of any other terms and conditions given in the Supply Order, NSIC may cancel the supply order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier.

In case vendor does not agree to above risk purchase clause, their offer is liable to be rejected. In case any vendor accepts risk purchase clause initially and subsequently declines to honour the term in the eventuality of RISK PURCHASE, they may be banned for business with NSIC.

#### 22) Cancellation of Bids

- a. NSIC reserves the rights to cancel any bid without assigning any reasons.
- b. NSIC reserves the rights to cancel bids and refloat a fresh tender, at any time after opening of the bids, in case it finds the response to its bid are not meeting its requirement. This shall be at the sole discretion of NSIC.

#### 23) Blacklisting / Debarring of Firm

- a. Units blacklisted by any Government Departments / PSUs are not eligible to participate in the tender.
- b. If the unit(s) commits breach of contract, it shall be black listed / debarred for further business with NSIC for a declared period.

#### 24) Post Tender Negotiations

- a. NSIC reserves the right to conduct negotiations on the `Price' and 'other commercial terms' with the lowest ranked offerer, and
- b. If so required by NSIC, supplier may have to share their cost data / costing sheet with NSIC.

#### 25) Force Majeure

If at any time during the currency of this contract, the performance in whole or in part, by either party of any

obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events), then provided notice of happening of any such events is given by either party to other within ten days from the date of occurrence thereof, neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

#### Annexure-I

## Format for technical bid

SI.	Tender requirements	Quantity	•
No.			(Yes/No)
	set of 15KVA Generator for supply & install		
Deor	ria, Uttar Pradesh, consisting of the following:		
1.	Supply, installation, testing and commissioning of silent type Diesel Generating Set having prime power of 15 kVA, 3 Phase, 50HZ, 415 Volt at 1500 RPM.  The machine shall have capability to run continuously in variable load condition for unlimited hours and should have 10% overload capacity of one hour in every 12 hours of operation.	1 Nos.	
	<u>Engine</u>		
	Diesel engine (Engine model X series coupled to 415 V) shall be direct Injection Water Cooled, 4 strokes, 1500 RPM of suitable BHP Capable of giving above mentioned output of Alternator. Engine will be fitted with all the required accessories. The average load factor of the engine over period of 24 hours shall be 0.8 for prime power output. The engine shall conform to IS:10000/ISO, 3046/BS, 649/BS 5514 amended upto date.		
	Starting System & Accessories.		
	<ul> <li>a) Electrical starter motor 12V DC</li> <li>b) Battery charging alternator</li> <li>c) Bosch fuel system with mechanical governor, A1 Class</li> <li>d) Spin-on fuel filter</li> <li>e) Spin-on lube oil filter</li> <li>f) Silencer (Critical grade)</li> <li>g) Dry type air cleaner</li> <li>h) Recovery bottle</li> <li>i) Shut-off coil</li> <li>j) Flywheel and flywheel housing</li> <li>k) First fill of lube oil and coolant</li> </ul>		

- I) Safety for low lube oil pressure
- m) Safety for high water temperature
- n) 500 hrs/6 months service interval
- o) Permissible overload of 10% for one hour in 12 hours of operation
- p) External fuel filling arrangement
- q) Flywheel Housing
- r) Flywheel
- s) Anti-vibration pads
- t) Base rail with integral fuel tank with level indicator provided with drain plug for drainage and air vent / breather and inlet and outlet connection with cleaning provision (Man hole)

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   Power factor: 0.8
- 3. Rated Generating Voltage: 415 Volts
- Voltage regulation: +/- 1% all load between no load to full load & factor 0.8 to unity
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- 6. Speed: 1500 RPM
- 7. Class of insulation: H
- 8. Overload capacity: 10% for one hour in any 12 hours of operation without exceeding temperature rise limits specified in BS:5000/ IS4722 when corrected to ambient temperature at site.
- Enclosures: Drip proof & screen protected IP-23
- 10. The alternator shall be of self-excited, self regulated through AVR, self ventilated in brushless design, provided with suitable automatic voltage regulator.

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- 1. Shall be suitable to suit stringent Ministry of Environment and Forest (MOEF)/ Central Pollution Control Board (CPCB) norms of 75 dBA at a distance of 1 meter from the enclosure.
- 2. Removal of Filters etc should be easy Ease of serviceability is important.
- 3. Air inlet lowers specially designed to operate at rated load even at 50 deg ambient or air inlet temperature.
- 4. Power coated for long lasting service life and superior finish.
- 5. With UV resistant powder coating, can withstand extreme environments.
- 6. Hardware should be rust free. Should be Stainless steel.
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Daily service Fuel tank of suitable capacity for minimum 8 hours of operation, fabricated out of MS Sheet complete with all accessories and fuel piping between fuel tank and diesel engine with MS C-Class pipes of suitable dia complete with walls, level indication and accessories as required.

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Channel with necessary reinforcement which shall be installed on suitable cement concrete foundation and vibration arrangement as per recommendations of manufactures.

#### **AMF Panel:**

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The control panel consists of following parts:

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- 2. Multi function meter which measures:
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  - 2) Phase voltages (V)
  - 3) kVA/ kWe
  - 4) Generator output frequency (Hz)
  - 5) Engine water temperature (Deg.C)
  - 6) Lube oil pressure (kg/cm2)
  - 7) Running hours
  - MCB of suitable rating
  - Key switch
  - Push button (Starter)
  - LED: Battery charging alternator fail indication
  - Current transformers
  - Instrument fuses duly wired and ferruled
  - 3. Operator Interface
    - Manual Start Stop
    - Remote Start Stop
  - 4. MCCB of suitable rating
    - 1 set of CTs for Metering
    - Key switch
    - Metering
    - Ammeter
    - Voltmeter
    - Frequency meter
    - KWH meter
    - KW/ PF MeterBattery Charger

	One Battery charging transformer/ rectifier unit		
	One battery charging transformer/ rectifier unit		
2.	Earthing with G.I. earth pipe 4.5 mtr long, 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal and salt as reqd.	4 Nos.	
3.	Supplying and laying 25mmx3mm G.I.Strip at 0.50 metre below ground as strip earth electrode i/c soldering etc as reqd	10 Nos.	
4.	Supplying and laying 6 SWG G.I. wire on surface or in recess for loop earthing along with cable as required.	10 Nos.	
5.	Supply & laying of one number PVC insulated control cable of 1.1 KV Grade of size 2.5 sqmm 10 core copper cable make: Havells/Gloster	20 Nos.	
6.	Supply and laying of XLPE insulated PVC Sheathed Aluminum conductor armored cable of 1.1 KV Grade of 4x35 sqmm size as required. Make: Havells/Gloster	20 Nos.	
7.	Supply and laying interconnection cable	1 Nos.	
8.	Supply and fixing exhaust gas piping of suitable dia welded black MS, A-Class pipe cut to required lengths and installed with necessary bends, supports and clamps, antivibration mountings, insulation of exhaust system with aluminum cladding as required as per specifications	12 mtr	
9.	Supplying and making end termination with brass compression gland and aluminium lugs for 4x35 sqmm size PVC Sheathed Aluminium conductor cable of 1.1 KV Grade as reqd.	1 Nos.	
10.	Complete set of tools, jigs & fixtures required for installations (Anti-vibration mountings/ foundation bolts etc), tools for smooth	One set	

	operations & maintenance of machines (hand tools, special tools including electrical circuit diagrams and electrical spares etc.)		
11.	Spares to maintain the normal operations of machine for one year. Ensure the spares list include all the items/ parts those are required to be replaced during the course of normal running of machine, due to their wear & tear. (please specify each item with detailed specifications / quantity - use separate sheet)	One set	

#### **Enclosures:**

- 1. Company profile with catalogues.
- 2. Detailed specification of all items mentioned above.
- 3. Copy of purchase orders/ contracts of similar nature and size in the last five years.
- 4. Copy of Pan Card / Sales tax / VAT registration certificate.
- 5. Copy of SSI / MSME Memorandum part II / NSIC registration certificate, if applicable.
- 6. Demand draft for Rs. 15,000/- as EMD.
- 7. Authorization letter in favour of authorized signatory from the bidder.

#### Annexure-II

### **Financial price schedule**

SI. No.	Description and Technical specification		Price (INR)	Tax & Duties (INR)	Total price (FOR, Deoria) (INR)
	set of 15KVA Generator for supply & in sisting of the following:	stallatio	on at D	. ,	
1.	Supply, installation, testing and commissioning of silent type Diesel Generating Set alongwith having prime power of 15 kVA, 3 Phase, 50HZ, 415 Volt at 1500 RPM (specifications as per technical bid)	1 No.			
a.	Diesel engine 4 stroke water cooled, electric start of suitable BHP at 1500 RPM suitable for above output of alternator.				
b.	Engine mounted instrument panel fitted with and having digital display as per specification.				
c.	Alternator rated at 15 kVA, 415 volts at 1500 RPM, suitable for 50 Hz 1-Phase system, AC Supply with 0.8 lagging power factor.				
d.	Base frame & foundation				
e.	Daily service fuel tank of suitable capacity				
f.	Exhaust system				
g.	Microprocessor/relay based AMF Control panel				
h.	Starting system 12V/24V DC starting system comprising of starter motor: voltage regulator and arrangement for initial excitation complete with suitable nos of batteries as required.				
i.	Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of engine and alternator, extraction, discharging hot air in to the atmosphere as per specifications.				
2.	Earthing with G.I. earth pipe 4.5 mtr long, 40 mm dia i/c accessories and providing masonary enclosure with cover plate having locking arrangement and watering pipe etc with charcoal and salt as reqd.	4 Nos.			

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3.	Supplying and laying 25mmx3mm	10		
	G.I.Strip at 0.50 metre below ground as	Nos.		
	strip earth electrode i/c soldering etc as			
	reqd			
4.	Supplying and laying 6 SWG G.I. wire on	10		
	surface or in recess for loop earthing	Nos.		
	along with cable as required.			
5.	Supply & laying of one number PVC	20		
	insulated control cable of 1.1 KV Grade of	Nos.		
	size 2.5 sqmm 10 core copper cable			
	make: Havells/Gloster			
6.	Supply and laying of XLPE insulated PVC	20		
	Sheathed Aluminum conductor armored	Nos.		
	cable of 1.1 KV Grade of 4x35 sqmm size			
	as required. Make: Havells/Gloster			
7.	Supply and laying interconnection cable	1 No.		
8.	Supply and fixing exhaust gas piping of	12		
	suitable dia welded black MS, A-Class	mtr.		
	pipe cut to required lengths and installed			
	with necessary bends, supports and			
	clamps, anti-vibration mountings,			
	insulation of exhaust system with			
	aluminum cladding as required as per			
	specifications			
9.	Supplying and making end termination	1		
٥.	with brass compression gland and	Nos.		
	aluminium lugs for 4x35 sqmm size PVC	1405.		
	Sheathed Aluminium conductor cable of			
	1.1 KV Grade as reqd.			
10.	Complete set of tools, jigs & fixtures	One		
10.	required for installations (Anti-vibration	set		
	mountings/ foundation bolts etc), tools	Set		
	for smooth operations & maintenance of			
	•			
	machines (hand tools, special tools			
	including electrical circuit diagrams and			
T - 4 -	electrical spares etc.)			
IOT	al price FOR, Deoria (Sl. No. 1 to 10)			

Lump	sum	price (	of one s	et of i	machinery	& equipr	nent (FOR,	Deoria:
Rs.								
(in wo	ords R	unees	3:					,

#### **Spares & Raw Materials**

SI. No.	Description and Technical specification	Qty.	Price (INR)	Tax & Duties (INR)	Total price (FOR, Deoria) (INR)
11.	Spares to maintain the normal operations of machine for one year. Ensure the spares list include all the items/ parts those are required to be replaced during the course of normal running of machine, due to their wear & tear. (please specify price of each item with detailed specifications & quantity-use separate sheet).				

**Note:** The above price should be inclusive of wooden box packing, transportation and insurance and Taxes & Duties etc.

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## Format of covering letter

	f. No.: te:
Na NS Ok	neral Manager (TID) tional Small Industries Corporation Limited IC Bhawan, hla Industrial Estate, w Delhi-110020.
sup	f.: Tender No SIC/HO/TID/DI/15-10 dated 3rd February, 2015 for oply & installation of one set of 15KVA Diesel Generator at oria.
De	ar Sir,
	th reference to above tender notice, we are submitting herewith roffer for above as per following documents:
1.	Technical bid in prescribed format as Annexure-I in sealed envelope no.1 alongwith enclosures (No financial figures should be mentioned directly or indirectly in technical bid).
2.	EMD for Rs. 15,000/- in the form of Demand Draft in favour of "National Small Industries Corporation Limited" payable at New Delhi along with technical bid in an envelope marked "EMD" placed inside sealed envelope no.1.
3.	Financial bid in prescribed format in sealed envelope no.2.
	e hereby agree to fully abide by all the terms & condition of this nder.
Tha	anking you,
	Yours faithfully,
	Name Designation