

#### **TENDER**

#### **FOR**

# SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 500 KVA DIESEL GENERATING SET WITH AMF PANEL

#### Tender No. NTSC(O)/INFRA /DG SET /2010/01

#### **NSIC-** Technical Services Centre

(A Government of India Enterprise)
Okhla Industrial Estate,
Near Kalkaji Mandir
New Delhi-110020

Tel No. 011-26826801, 26826882, Fax: - 011-26826783

Email: ntscok@nsic.co.in Website: www.nsic.co.in

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#### NOTICE INVITING TENDER

NSIC-Technical Services Centre (NTSC), Okhla, New Delhi invites sealed tender in Two bid system (Technical & Commercial bid in two separate envelopes) from Original Equipment Manufacturers (OEMs) / Authorized Distributors/ Dealers for the Supply, hstallation, Testing & Commissioning of Diesel Generating set with AMF Panel in their office at Okhla Industrial Estate, New Delhi.

The details are as summarized below:-

a)	Name of the Project:	Supply, Installation, Testing & Commissioning at site of one 500 KVA Diesel Generating set with required accessories including AMF panel as p er the detailed under:  Engine:  Cummins Diesel engine model KTA19G9  Direct Injection Water Cooled Diesel Engine 4 stroke, 6 cylinder in line - 600 BHP @ 1500 RPM confirming to ISO 3046 / BS 5514 to drive 500 KVA Alternator.(Detail specifications attached in Annexure-A)  Alternator:  M/s Cummins Generator Technology (Stamford), Rating: 500 KVA, Power factor:  0.8, Rated Generating Voltage: 415 Volts, Voltage regulation: +/- 1% all load between no load to full load & factor 0.8 to unity, Frequency 50 Hz, Speed: 1500 RPM, Class of insulation: H, Winding connection: Star connection.(Detailed specification attached in Annexure-A)
		<b>AMF Panel: ACB(EDO) type.</b> As per detailed attached in Annexure-A.
b)	Exhaust emission norms	The generator set shall be Central Pollution Control Board (CPCB) compliant and the Tenderer shall submit the relevant papers alongwith tender documents as a part of Technical Bid to prove the same.

c)	Pre-Qualification requirement (PQR) of bidders	The Tenderer shall be engaged in supply, Installation, Testing & Commissioning of Diesel Generating set with a capacity of 500 KVA including AMF panel as per the detailed above at Para "a)" and shall give self declaration in this regard while submitting Technical Bid. Also the Tenderer shall enclose the list of suppliers, to whom the supplies were made in the last three years while submitting the Technical Bid. NTSC reserve the right to call for documentary proof, if required. Refer to the Annexure-B for details about PQR and documents to be attached with Technical bid.
d)	Sale of tender document	The blank tender document can be collected in person from the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi from 25th June,2010 to 12th July,2010 (except Saturday & Sunday) between 10.30 am to 4.30 pm.  Alternatively the tender form can be downloaded from our web site <a href="https://www.nsic.co.in">www.nsic.co.in</a> from 25th June 2010 to 12th July 2010.
e)	Cost of Tender Document	
f)	Earnest Money Deposit along with tender	form of demand draft in favor of "NSIC Ltd. A/c NTSC" payable at New Delhi shall be submitted in the Technical Bid envelop while submitting the tender.
g)	Last date of	The complete tender in a bigger envelope,

	submission of tender	containing two small envelopes, in which one envelope containing PQR documents & EMD and Second envelope containing –Financial bid, shall be received by 13th July 2010 up to 1400 hours at the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi
h)	Date of opening of Technical Bid ( envelope-1)	The first envelope containing PQR documents and EMD will be opened on 13th July 2010 at 1600 hours at the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi.
g)	Date of opening of Commercial Bid ( envelope-2)	The date for opening second envelope containing financial bid will be intimated to the qualified bidders separately.

#### Note:

- 1. The sealed first envelope containing PQR documents & EMD shall be super scribed as "Tender for the Supply, Installation, Testing & Commissioning of Diesel Generating Set PQR documents".
- The sealed second envelope shall be <u>super scribed</u> as "Tender for the Supply, Installation, Testing & Commissioning of Diesel Generating Set – Financial Bid" and the said envelope shall contain with all financial details of bid.
- The one envelope containing PQR & EMD and second sealed envelope containing Financial bid i.e. both these envelopes shall be placed in the big envelope super scribed as ""Tender for the purchase of 500 KVA Generator Set".
- 4. In case of any further details required, the same can be collected from the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi from 25th June 2010 to 12th July 2010 (except Saturday & Sunday) between 10.30 am to 04.30 pm.

#### **INSTRUCTION TO THE TENDERERS**

The Tender shall be submitted in accordance with these instructions and any tender not confirming the instructions as under is liable to be rejected.

These instructions shall form the part of the tender and contract.

- 1. The intending Tenderer, in case of Original Equipment Manufacturers shall submit the certificate from original manufacturer that they shall be treated as OEMs.
- 2. The intending Tenderer, in case of authorized Distributor / Dealer shall possess valid authorized Distributorship / Dealership license from manufacturers. He shall enclose the copy of the same alongwith the tender. A copy of the same should be enclosed with the Technical bid.
- 3. The person signing the tender form or any other documents forming part of the contract on behalf of the Tenderer shall be deemed to warranty that he has authority to bind the Tenderer. If subsequently comes to light that the person so signed had no authority to do so, The General Manager, NSIC Technical Services Center (NTSC) may without prejudice to any other civil & criminal remedies cancel the contract or the tender and hold the Tenderer liable for all costs, charges and damages.
- 4. The tender must be placed in a properly sealed bigger envelope addressed to General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi and the said bigger envelope shall contain two sealed envelopes containing Technical & Financial bids.
- 5. The bigger envelope must be super scribed "Tender for the purchase of 500 KVA Generator Set". The two envelopes inside the bigger envelope must be super scribed as:

Envelope No-1: The said envelope is for technical bid & shall be super scribed as "Tender for the Supply, Installation, Testing & Commissioning of Diesel Generating Set – PQR documents"

Envelope No-2: The said envelope is for commercial bid & shall be super scribed as "Tender for the Supply, Installation, Testing & Commissioning of Diesel Generating Set – Financial Bid".

The tender should reach the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi by 13th July 2010 up to 1400 hours.

- 6. The tenders will be opened at NTSC-Okhla on 13th July 2010 at 1600 Hours (4.00 P.M). The Tenderer or their authorized representative (One person only) may be present at the time of opening of the tender.
- 7. The tender shall be completed in all respect and should be signed with date by the Authorized Signatory of Tenderer on all the pages and duly signed all pages of tender shall be placed with Technical Bid. Also the company stamp shall be placed under the signature of person on each and every page of tender document.
- 8. All the columns of the tender shall be duly, properly and exhaustively filled in. The rates and units shall not be overwritten. The quotations shall always be both in figures and words.
- 9. General Manager, NSIC-Technical Service Centre reserves the right to reject any tender/ bid wholly or partly without assigning any reason and to restrict the list of qualified contractors for opening of financial bid to any number deemed suitable by it from out of bids received.
- 10. The material shall be in compliance to the specifications of the tender and shall be of the best quality and high standards
- 11. Nothing extra shall be paid on account of any discrepancy in nomenclature of items. The Tenderer shall seek clarifications if any before submitting the tender.
- 12. While submitting the tender, any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender are liable to be rejected. If any Tenderer stipulates any condition of his own, such conditional tender is liable to be rejected.
- 13. Any cutting/over writing etc. in the tender must be signed by the person who is signing the tender.
- 14. The Earnest Money deposit of Rs. 50,000 (Fifty Thousand) by way of DD drawn in favor of "NSIC Ltd. A/c NTSC" shall be submitted in the first envelope super scribed as, "Tender for the Supply, Installation, Testing & Commissioning of Diesel Generating Set PQR documents". No Cheque or cash towards Earnest Money deposit shall be accepted. The offers without Earnest Money Deposit will be rejected.
- 15. NSIC-Technical Services Centre (NTSC) have right to verify the particulars furnished by the bidder independently.

- 16. The Tenderer agrees that the rates submitted shall remain valid for acceptance for a period of 120 days from the date of opening of Technical Bid of tender.
- 17. Tenderer shall take into account the cost of labour, unloading & cartage etc. for giving delivery of material at site i.e. NSIC-Technical Services centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi before quoting the rates. In this regard no claim what so ever shall be entertained.
- 18. The material shall be inspected on receipt at destination, i.e. NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi and supplier shall be responsible for any damage during the transit of goods.
- 19. All the communication with respect to the tender shall be addressed to:

General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi-110020

20. In the event of any dispute the legal matter shall be subjected to the jurisdiction of Delhi Court only.

We confirm with our acceptance to the instructions (S.No-1 to 20 above) as given above.

TENDERER'S NAME & SIGNATURE WITH SEAL

#### **COMMERCIAL AND GENERAL TERMS & CONDITIONS**

Nature of Goods/ Equipments: For Supply, Installation, Testing &

Commissioning of Diesel Generating

set with a capacity of 500 KVA

including AMF panel

#### 1. Scope of Supply:

- a) The tenders shall be submitted as per the technical specification enclosed in Annexure-A.
- b) Sealed tenders in the two cover system should be submitted in the prescribed form and should be addressed to the General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi. The envelope should be super scribed as "Tender for the purchase of 500 KVA Generator Set." In the said envelope, the two separate sealed envelopes shall be placed in which one envelope shall have "Technical bid (PQR and EMD)" and second envelope shall have financial bid". The authorized person of the Tenderer should sign the tender documents.
- c) The quantity indicated in the Annexure- A is only approximate and liable for upward/downward revision. If additional quantity is required, the qualified Tenderer is bound to supply such quantity at the accepted rates.
- d) The Tenderer are free to inspect the installation location in the premises of NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi before submitting the quotes.
- e) The rates quoted against this tender shall be valid for a period of 120 days from the date of opening of Technical Bid of tender.
- f) Submission of the tender implies that these conditions of Contract have been read by the Tenderer and is aware of the scope of the supply and the quality of the material to be supplied. The final acceptance of the tender rests with the General Manager of NSIC-Technical Services Centre, who reserves the right to accept or reject any or all tenders without assigning any reason therefore.

#### 2. Submission of tender:

- a) The tender received within the stipulated date and time will be opened at the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi, in the presence of available tenders, on the date and time mentioned in the Notice Inviting Tender.
- b) Tenders received in open covers / letters / fax / telegram / email will not be considered.
- c) The tenders received after the stipulated date and time or tenders received without the requisite EMD or tender received with conditions will not be accepted. Tenders not submitted in the prescribed form will be rejected. Tenders which propose any alternations in the conditions specified will be rejected.

#### 3. Validity of tender:

- a) The tender shall be valid for a period of 120 days from the date of opening of the Technical Bid of tender. If any Tenderer withdraws his tender before the said period or makes any modifications in the terms and the conditions of the tender which are not acceptable to the NTSC, then the NTSC shall, without prejudice to any other rights or remedy, be at liberty to forfeit the EMD. The rates quoted in the tenders shall be treated as firm during this period of contract.
- b) Should the Tenderer for any reason whatever withdraws the tender after it is accepted or become unable or fails to execute the orders within stipulated delivery period, the Centre shall be at liberty to cancel the order forthwith. The EMD of the tender in such a case will be forfeited by the Centre. Further the Centre shall have the right to procure such or similar Diesel Generator Set from the open market at the tender's risk and expenses.
- c) No representation for the enhancement of the prices of the accepted tender or alteration of the terms and conditions will be entertained till supplies are completed.

#### 4. Offers ready stock/ Subject to prior sale:

a) Offers from ready stock are preferred. In case the offers are subject to prior orders, the Tenderer shall indicate the period within which the ordered quantity will be supplied. The Tenderer shall please note that in case tenderer is failed to supply within the period of delivery indicated in the said tender, penalty at the rate of 1% of value of the contd...

- order, per week of delay subject maximum of 10% of the order value will be levied.
- b) The successful Tenderer shall, within a week from the date of receipt of communication of acceptance of quotes, intimate his acceptance of the order. The successful Tenderer shall complete supplies strictly as per the accepted delivery period.

#### 5. Guarantee of Quality:

- a) The equipments offered shall confirm to the specifications as given in tender/order and shall be guaranteed against defective design, defective quality material supplied, manufacturing defects etc. for a minimum period of 12 months from the date of supply and installation of Diesel Generating set with a capacity of 500 KVA including AMF panel and provide onsite warranty for the period as confirmed in price bid (Column No 9 in Annexure "C"). Onsite warranty of minimum 12 months covers free service and free spare parts excluding cost of consumables.
- b) The Tenderer have right to offer warranty more than 12 months and this aspect would certainly be taken into consideration.

#### 6. Packing:

- a. The supplier shall provide such packing of the goods, as is required to prevent their damages or deterioration during the transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit.
- b. The Diesel Generating set with a capacity of 500 KVA including AMF panel shall be securely boxed, crated and protected from mechanical damage, moisture etc. suitable for both storage and transit according to the nature of the material and mode of transport.

#### 7. Price:

a) The price shall be firm and shall include all applicable taxes. Any variation in the taxes duties, levies etc. during the period of contract shall be to the Tenderer account. The rates quoted shall be all inclusive on FOR destination. Destination means NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi. The Corporation will not issue Forms C and or D. The tenderer should note this while quoting the rates. The price shall be quoted both in figures and words.

b) The successful tenderer shall produce PAN Number, TIN Number registration details alongwith the tender document. Applicable taxes, if any, will be recovered from the bills.

#### 8. Delivery:

- a) The successful tenderer shall complete supplies strictly within the accepted delivery period. Material ordered by the NTSC shall be delivered FOR destination securely packed as may be necessary.
- b) DG sets shall have to be delivered at and installed at NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi and to be operationalized to the satisfaction of the Manager (Electrical Maintenance) of NTSC.
- c) Installation & demonstration of DG sets shall have to be carried out free of cost at NSIC-Technical Services Centre, Okhla Industrial Estate, Opposite Kalkaji Mandir, New Delhi. Free training for at least two persons shall be provided.

#### 9. Payment:

- a) The payment will be made by the Corporation by crossed account payee cheque for which the tenderer shall send bills in duplicate (original + copy) giving the reference number of the purchase order, proper installation certificates duly acknowledged by the Manager (Electrical Maintenance) of NTSC, copies of LR/delivery note/with warranty card.
- b) The payment of 80% of the total bill value will be made to the supplier within seven days from the date of submission of the bill with all other relevant documents/acknowledgement of total material received as per the order given to Tenderer.
- c) The balance 20 % payment of total bill value will be released to supplier after successful testing, Installation & commissioning of Diesel Generating set with a capacity of 500 KVA including AMF panel at site, against the receipt of performance guarantee from supplier for the period of 12 months from the date of Installation & Commissioning of Diesel Generating set with AMF panel at site.
- d) Supplier shall provide Performance Bank Guarantee from any Nationalized / scheduled Bank in India in favor of NSIC-Technical Service Centre for 20% (twenty percent) of the total bill value of the order with validity of 12 months. The guarantee shall be given as a commitment of supplier for services during the period of minimum

Contd.....

warranty period i.e. 12 months. In case the supplier fails to deliver the services, NTSC can recover the amount by invoking the Performance Bank guarantee.

#### 10. Earnest Money Deposit:

- a) An EMD of Rs 50,000/- shall be paid along with the tender either by way of DD/Pay order drawn in favour of the NSIC Ltd. A/c NTSC New Delhi.
- b) Non furnishing of EMD at prescribed rate alongwith the tender or by claiming exemption will attract to rejection of the tender.
- c) NSIC Technical Services Centre shall not be liable for payment of any interest on EMD or any depreciation thereof.
- d) Any request by the bidders to consider their EMD furnished by them to NTSC for any other contract/tender cannot be considered as EMD for this tender. Hence the bidders have to invariably furnish the required EMD for this tender.
- e) The EMD will be returned to the unsuccessful bidders soon after the orders are placed on the successful bidder/s.
- f) In case of successful bidder, the EMD will be kept with our office for a period of 12 months from the date of successful installation of DG set.
- g) The EMD/SD will be forfeited in the following cases:
  - I. If the bidder fails to accept the order based on his offer (bid) and/or fails to agree to enter into contract within the prescribed time.
  - II. If the bidder fails to supply the Diesel Generating set with a capacity of 500 KVA including AMF panel on issuance of dispatch instruction by the NTSC at the agreed contract rate.
  - III. If the bidder delays supplies beyond a reasonable time resulting in disruption of NTSC works
    - NSIC Technical Service Centre shall not be liable for payment of any interest on EMD or any depreciation thereof.

#### **11.** Contract agreement :

a) The successful bidder is required to enter into an agreement with usual terms and conditions on Rs. 100/legal stamp paper within 20 days from the date of communication of the acceptance of the offer.

#### 12. Duration & Termination of contract:

a) The duration of the contract is for a period of 12 months from the date of contd.....

- agreement and it can be extendable for further period on mutually agreed terms and conditions. The corporation reserves the right to accept or reject any or all the tenders without assigning any reasons.
- b) Service Facility: In order to ensure proper and timely after sales service manufacturer or authorized agency shall have an office in New Delhi with well equipped service centers with technically qualified people across Delhi or shall be able to deploy Service Personnel at short notice and attend the maintenance within 24 hours.
- c) Number of units of power that can be generated in an hour and other technical details like, fuel consumption/efficiency in one hour, the unit cost of production per unit of Electricity etc. should be furnished in Technical bid.

#### 13. Claims:

- a) If the material supplied are found to be off size and shape different than those contracted and are of specifications lower than those stipulated in this contract. NTSC shall have right to totally reject the goods and/or to prefer a claim for compensation for the part of goods, which is rejected. The supplier shall reimburse to NTSC, the actual expenditure on such goods by way of cost, within 15 (fifteen) days of its demand. The supplier shall be responsible for arranging the rejected goods to be removed at his cost from NTSC premises, if so desired by NTSC.
- b) The supplier shall also compensate for losses, if any, sustained by NTSC due to defective packing and/or marking of the goods not in accordance with the terms of the Contract.

#### 14. Breach of Contract:

- a) In case of failure of the tenderer to perform the contract as per the terms and conditions and to the satisfaction of NTSC. NTSC reserves the right to terminate the contract without assigning any reason. NTSC shall have a right to execute the work through any other agency on the risk and cost of the Tenderer.
- b) Following actions on the part of manufacturer/authorized dealer will constitute breach of contract:
  - a) Non supply of DG sets on stipulated time, quantity and specifications ordered by the Corporation
  - b) Supply of poor quality, sub standard DG sets
  - c) Inordinate delay on supply of equipments
  - d) Failure to replace/provide alternate DG sets in place of faulty damaged, seconds or sub standard DG sets

Contd.....

In case the tenderer commits any of the above acts the Corporation reserves the right to repudiate the contact without assigning any reasons besides taking appropriate action against the dealer including forfeiture of security deposit.

#### 15. Guarantee:

- a) The supplier shall be unconditionally guarantee that the Material supplied shall:
  - a. Be in satisfactory condition and free from all defects including defects arising out of inferior materials faulty and inferior workmanship.
  - b. Be of highest quality and fit for the purpose for which they are intended.
  - c. Strictly comply with Technical Specifications.
- b) Whereas defects are found in goods within a period of 12 months from the date of supply, the supplier shall bear all costs including freight and the replacement of the defective goods, without any cost to NTSC.

#### 16. Warranty:

It shall be ensured that the supplier shall give complete warranty for the goods to be supplied against the tender and proposed period of warranty shall reflect properly in the price bid.

We confirm with our acceptance to the Commercial & General Terms & Conditions (S.No-1 to 16) as given above.

Signature of the Tenderer with seal

#### (Undertaking from Tenderer)

To,
The General Manager
NSIC-Technical Services Centre,
Okhla Industrial Estate,
New Delhi-110020

Sir,

Nature of Goods/ Equipments:	For Supply, Installation, Testing &
	Commissioning of Diesel Generating set
	with a capacity of 500 KVA including AMF
	panel

Dear Sir,

#### HAVING EXAMINED AND PERUSED THE FOLLOWING DOCUMENTS

- 1. Notice Inviting Tender
- 2. Instruction To The Tenderer
- 3. Commercial & General Terms & Conditions
- 4. Format & Requirement for submitting Technical Bid
- 5. Format & Requirement for submitting Price Bid
- 6. Technical Specifications of item for which tender issued

I/We enclose herewith a Bank Draft /Pay Order for Rs.50,000/- as Earnest money. I am aware that the Earnest Money will not bear any interest.

If this tender is accepted, I/We agree to abide by and fulfill all the terms and provisions in the tender documents and agree to enter into an agreement with all the conditions that may be stipulated by the NTSC or in default thereof pay to the NTSC the sum of money mentioned in the said condition without prejudice to any other right of the NTSC.

I/We hereby distinctly and expressly declare and acknowledge that before the submission of this tender, I/We have carefully followed the instructions and I/We have understood the existing system of supply in the NTSC, including the scope and nature of duties expected from the Tenderer.

I/We distinctly agree that I/We would hereafter make no claim or demand upon the NTSC based upon or arising out of any alleged misunderstanding or misconceptions or mistake on my/our part of the said contract, agreements, stipulations, restrictions and conditions.

Any notice required to be served on me/us shall be sufficiently served on me/us by post (registered or ordinary) or courier or left at my/our address furnished herein.

I/We fully understand the terms and condition of the contract to be entered into between me/us and the Corporation and the written agreement shall be foundation of the rights of both the parties and the contract shall not be deemed to be completed until an agreement has been signed by me/us and the NTSC.

Dated this		day of	2010
Name of the Tenderer/s:			
Seal:	V		
Authorized Signatory:			

With complete address, phone/fax numbers

#### **DECLARATION**

(To be given by Tenderer at the time of submission of complete tender)

Nature of Goods/ Equipments: For Supply, Installation, Testing &

Commissioning of Diesel Generating set with a capacity of 500 KVA including AMF

panel

I/We have read the Tender documents and related matters carefully and diligently and that I/We have submitted the tender having studied, understood and accepted the full implications of the tender agreement.

The requirements of the tender agreement as stated above will be fulfilled by me/us to the satisfaction of the NTSC.

Tenderer:
Seal:
(Authorized Signatory):
(To be submitted along with the tender document)

Enclosures: (Details shall be given for the documents attached)

- 1.
- 2.
- 3.
- 4.
- 5.

#### **ANNEXURE-A**

#### NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi

# Technical Specifications for the Supply, Installation, Testing & Commissioning of Diesel Generating set with a capacity of 500 KVA including AMF panel

#### 1.ENGINE:

- ✓ Cummins Diesel engine model KTA19G9
- ✓ Direct Injection Water Cooled Diesel Engine 4 stroke, 6 cylinder in line - 600 BHP @ 1500 RPM confirming to ISO 3046 / BS 5514 to drive 500 KVA Alternator.
- ✓ The Generator Set should be of Prime Power Rating and should have capability of running continuously in variable load condition for unlimited hours per year and should also have a 10% overload capacity of 1 hour in every 12 hours of operation.

#### 2. Air System - Intake & Exhaust

- ✓ Dry-type Replaceable paper element Air cleaner
- ✓ Restriction Indicator/ Vacuum indicator.
- ✓ Turbocharger
- ✓ Intake Manifold
- ✓ Pulse tuned Exhaust Manifold
- ✓ Silencer suitably optimized to meet stringent sound emission standards laid down by MOEF/CPCB
- ✓ Stainless Steel Exhaust Flexible coupling for long life

#### 3. Cooling System

- ✓ Radiator to suit 50 degree ambient.
- ✓ Cooling system piping.
- ✓ Thermostats
- ✓ 7 PSI Pressure cap
- ✓ Coolant Inhibitor
- ✓ Engine driven Fan.
- ✓ Low Temp after cooling

#### 4. Fuel System

- ✓ Fuel pump
- ✓ Injectors-Electrical Two Step Timing control
- ✓ Full flow paper element filters Fuel.

#### 5.Lubricating Oil System

- ✓ Plate type lub oil cooler
- ✓ Full flow paper element filters lubricating oil
- ✓ First fill lubricating oil
- ✓ Bypass filter

#### 6. Accessories.

- ✓ Flywheel Housing
- ✓ Flywheel
- ✓ Anti-vibration pads
- ✓ Base rail with integral fuel tank with level indicator of above 700 liters capacity provided with drain plug for drainage and air vent/breather and inlet and outlet connection with cleaning provision (Man hole)

#### 7. Starting System

- ✓ Electrical Starter 24 volts
- ✓ Engine driven Battery Charging Alternator.
- ✓ Two nos. of 12 volts of 180 AH Dry Uncharged battery with suitable connection terminals and leads for proper battery connection.

#### 8. Alternator:

- ✓ Manufacturer: M/s Cummins Generator Technology (Stamford)
- ✓ Rating: 500 KVA
- ✓ Power factor : 0.8
- ✓ Rated Generating Voltage: 415 Volts
- ✓ Voltage regulation: +/- 1% all load between no load to full load & factor 0.8 to unity
- ✓ Frequency: 50 Hz
- ✓ Speed: 1500 RPM
- ✓ Class of insulation: H
- ✓ Winding connection: Star connection (all six leads will be brought out of stator frame)
- Overload capacity: 10% for one hour in any 12 hours of operation without exceeding temperature rise limits specified in BS: 2613 or BS: 5000 when corrected to ambient temperature at site.
- ✓ Bearings: Single bearing
- ✓ Enclosures : Drip proof & screen protected IP-23
- ✓ The alternator shall be of self-excited, self regulated, self ventilated in brushless design, provided with suitable automatic voltage regulator and shall conform to BS:2613 or BS: 5000 and shall give rated output at NTP conditions.

#### 9. Acoustic Enclosure

- ✓ Shall be suitable to suit stringent Ministry of Environment and Forest (MOEF)/ Central Pollution Control Board (CPCB) norms of 75 dBA @ 1 meter at 75 % load under free field conditions.
- ✓ Removal of Filters etc should be easy Ease of serviceability is important.
- ✓ Air inlet lovers specially designed to operate at rated load even at 50 deg ambient or air inlet temperature.
- Quality and proper workmanship, Made on special purpose CNC machines.
- ✓ Power coated for long lasting service life and superior finish.
- ✓ With UV resistant powder coating, can withstand extreme environments.
- ✓ Hardware should be rust free. Should be Stainless steel.
- ✓ Insulation material meets exactly IS 8183 specs for better attenuation.

#### 10. Integrated Generator Set Controller

- ✓ Microprocessor Based integrated Generator Set Monitoring, Metering, Protection and electronic governing system.
- ✓ Engine Monitoring, protection and diagnostics:
  - Lubricating oil Pressure
  - Coolant Temperature
  - Engine speed
  - Hours run
  - Battery Voltage
  - Common Warning.
  - Common Shutdown
  - High Coolant temp warning and shutdown.
  - Low lube oil pressure warning and shutdown.
  - Low coolant level shutdown
  - Overspeed Shutdown.
  - Battery Charging failure indication.
- AC Metering & Alternator Protection
  - •AC Voltage 3 Phase.
  - •Current R Y B 3 Phase
  - Power Factor
  - Over voltage
  - Under Voltage
  - •Over & under Hz.
  - Over current.
  - •KVA & Hz
  - Kilowatt

- ✓ Operator Interface
  - Manual Start Stop
  - Remote Start Stop
  - Cyclic cranking
  - Alternator voltage trim adjustment
  - Field Trim adjustment.

#### 11. AMF Panel for Diesel Generator Set

- ✓ The Generator control shall be indoor type, floor mounted, dust and vermin proof in sheet steel construction. The panel shall have doors at the front and back for proper maintenance. The panel shall have steel channel fabricated kick-plate and bolted type cable gland plate fitted at the bottom. The panel shall be constructed from 2 mm thick steel sheet. All the joints shall have proper gaskets.
- ✓ Monitoring and control devices shall be housed on the front door. Generally the construction of the panel will be such that various equipments for applications will be housed in compartments. All incoming and outgoing power and control cables shall be from the bottom.
- ✓ Panel will be equipped as follows:
  - •2 nos. 4 pole, 800Amp ACB EDO type
  - •1 set of CTs for Metering
- ✓ Metering
  - Ammeter with selector switch
  - Voltmeter with selector switch
  - Frequency meter
  - KWH meter
  - •KW/PF Meter
- ✓ AMF Logic
  - One Main supply voltage monitor
  - One Alternator supply voltage monitor
  - One set of DC control relays and timers
  - •One Set of control relays for the automatic control system
- √ Battery Charger
  - •One Battery charging transformer/ rectifier unit
  - One DC Ammeter
  - One DC Voltmeter
- ✓ Indications
  - Set running
  - Set on Load
  - Phase Indication.

#### **ANNEXURE-B**

#### NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi

### FORMAT & REQUIREMENTS FOR SUBMITTING TECHNICAL BID (PQR & EMD)

1.	Tender Ref. No:
	Name of Tenderer:
3.	Due date & Time of submission:
4.	Opening date & time:
5.	Amount of EMD enclosed for
	RsDDNoDateDrawn on (Bank Name)
6.	In case the tender is downloaded from Website, the tender fee of Rs,1000/- enclosed by way of DD No.
	dateddrawn on(Bank Name)
7.	Documents - Details to be enclosed with the Technical bid:
L	Pro Qualification requirements:

#### Pre-Qualification requirements:

a)The Tenderer shall give a self declaration on their letter head, confirming that they are regular in supplying the items/ equipments as mentioned in the tender no. NTSC (O)/INFRA/DG SET/2010/01and has capacity & capability to execute the tender independently, in compliance to the terms & conditions contained in Tender documents.

b)In case the indenting tenderer is Original Equipment Manufacturer, they shall submit the certificate from original manufacturer that they shall be treated as OEMs.

OR

In case the indenting tenderer is authorized Distributor / Dealer ,they shall have to possess valid authorized Distributorship / Dealership license from manufacturers. The copy of the same shall enclosed along with the technical bid of tender.

- II. Details of suppliers to whom the similar supplies completed during the last three years i.e. supply, Installation, Testing & Commissioning of Diesel Generating set with a capacity of 500 KVA including AMF panel-The detail shall be submitted as per the format placed under:
  - a. Name of work/ Project location/ procurement office details:
  - b. Scope of work:
  - c. Cost of work:
  - d. Date of commencement of work
  - e. Stipulated date of completion
  - f. Status of project as on date:
  - g. Name/ Address / Telephone number of officer to whom reference may be made.
- III. The generator set shall be Central Pollution Control Board (CPCB) compliant and the Tenderer shall submit the relevant papers alongwith Technical bid of tender documents to prove the same.
- IV. Give description of items/equipment/material with accessories offered by Tenderer for supplies through this tender. The bidder shall submit all supporting information with respect to the technical data of product. Items offered should conform to specification/s or as explicitly stated, detailed in annexure-A.
  - In case specifications offered are different, separate comparative technical specifications sheet shall be attached with details such as S.No., Specifications offered, Deviations if any, and Remarks. Any product brief, test certificates available may be enclosed. The tender may in addition, furnish any other supporting information, technical data, drawings or booklets which in his view are necessary. List of spares, if applicable should be attached.
  - Any optional, if offered, be provided with their full technical details including their use and advantage.
- V. Number of units of power that can be generated in an hour and other technical details like, fuel consumption in one hour, the unit cost of production per unit of Electricity etc. should be furnished.
- VI. Confirmation that the tender shall remain valid for acceptance for 120 days from the date of opening the Technical Bid of the tender i.e. Valid for 120 days from 13th July 2010.
- VII. Attach the duly signed on each page of complete tender documents like instructions to tenderers, commercial & general terms and conditions, undertaking from tenderer, declaration by tenderer(as per format) placed in tender alongwith the said Technical Bid.

Signature of the Tenderer with stamp

#### **ANNEXURE-C**

#### NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi

## FORMAT & REQUIREMENTS FOR SUBMITTING COMMERCIAL BID (PRICE BID)

۱.	Tender Ref. No.:
2.	Name of the Tenderer:
3.	Due date & due time of submission:
4.	Opening date & time:
5.	PAN Number of supplier
3.	TIN registration number of supplier
	The offer with ates for the schedule of requirements of items, a

7. The offer with ates for the schedule of requirements of items, as elaborated under, to be submitted. Adhering to the format given below is a Pre-requisite for considering your quotations:

Item No.	Description	Qty	Unit (Nos. / Meter / any other to specify)	Unit Price (Rs.)	Total Amount ( Qty X Unit Price) (Rs)
1	Supply, Installation, Testing & Commissioning of DG set	One	No		
2	Supply, Installation, Testing & Commissioning of AMF Panel with Auto changeover with Breaker (EDO) for Mains & DG set.	One	No		
3	Earthing Pits set of 4 pits of GI As per IE Rule	Four	No		
4	a) Supply of earthing strip 50x 6MM GI	100	Meter		
	b) Labour charges laying & fixing of Earthing Strip 50 x 6MM GI	100	Meter		

5	Laying of power cable & its termination as required on site (Power cable 400 mm single core for each phase shall be provided by NTSC-Okhla.	One	No	
6	a)Supply of Control Cable 24 core 2.5 Sq mm	30	Meter	
	b)laying of Control Cable 24 core 2.5 Sq mm	30	Meter	
7	a) Supply of exhaust piping 8" MS (Class C) with 50 mm hot insulation & aluminum cladding with required supports, Bend & Flange etc.	12	Meter	
	b) Cost of installation of Exhaust piping.	One	Job	
8	Unloading, Shifting & Placing of DG Set on PCC Platform	One	Job	
9	Supply of Terminal Box suitable for 400 sq mm single core	One	No	
10	PCC foundation of as per requirement of DG Set	One	Job	
	Total:			

Note: - The quantity reflected in above schedule of requirements is tentative/approximate only.

8.	The rate quoted above should be net inclusive of basic price, taxes, packing, forwarding & transportations etc. up to the site i.e. NSIC-Technical Services Centre, Okhla, New Delhi basis. The NTSC will not issue "C" and "D" forms.
a	Warranty period:
٥.	warranty period.
	( Indicate warranty period
	duration offered)

- 10. Delivery period required after receipt of order from NTSC: ...... (Number of days)
- 11. Payment terms: Refer to the Para 9 (Payments) of "Commercial and General Terms & Conditions of tender".
- 12. Delayed supplies: Refer to the Para 4 (Offers ready stock/ Subject to prior sale) of "Commercial and General Terms & Conditions of tender".
- 13. Separate list should be attached where ever required for giving the details of each item and cost.
- 14. The tender shall remain valid for acceptance for 120 days, from the date of opening of Technical B id of the tender.
- 15. Rates should only be quoted in the accounting units (A/U) mentioned in above format. Rates must be quoted clearly on free delivery basis at NSIC-Technical Services Centre, Okhla, New Delhi.
- 16. In case any of the subheads are included in the total cost, the same should be specified in a separate sheet.
- 17. Any exemption of duties/taxes required should be indicated.
- 18. In case spares/accessories are applicable, their list and price should be clearly indicated separately. Also in case spares/accessories are applicable and you are offering with in the quoted rates, the same shall also be indicated separately.
- 19. Any optional equipment indicated in techno commercial bids must be priced separately.

Signature of the Tenderer With stamp