

TENDER

FOR

**SUPPLY AND INSTALLATION, TESTING &
COMMISSIONING OF AMF PANEL FOR**

500 KVA DG SET

AT

NSIC STP COMPLEX

OKHLA INDUSTRIAL ESTATE

NEW DELHI -110020



ISO 9001:2008

THE NATIONAL SMALL INDUSTRIES

CORPORATION LTD.

(A Government of India Enterprise)

Okhla Industrial Estate

New Delhi-110020

**Website: <http://www.nsic.co>. THE NATIONAL SMALL
INDUSTRIES CORPORATION LTD.
(A GOVERNMENT OF INDIA ENTERPRISES)
Okhla Industrial Estate New Delhi-110020**

Ref: - SIC/ED/T/STP/SER DG 5000/12/99

Date: 02-07-2012

M/s. _____

Sub: Supply, installation, testing and commissioning of AMF panel for 500 KVA DG set at NSIC STP Complex, Okhla Industrial Estate, New Delhi -110020.

Sir,

Tender documents in respect of the above mentioned works containing 35 pages as detailed on page 4 (Index) are forwarded herewith. ***Please note that tender is to be issued in the office of the General Manager (Works) NSIC Ltd., NSIC Bhawan Okhla Industrial Estate New Delhi-110020 up to 12-07-2012, 3.00 P.M.***

The Tender should be signed on each page, dated and witnessed in all places provided for in the documents; all other papers should be initialed.

The tender should be accompanied by Earnest Money Deposit in the form of demand draft as mentioned in Appendix. Tenders without earnest money deposit shall be summarily rejected. The tenders will be opened at 3.30 P.M. on 13-07-2012.

The person, signing the tender on behalf of company/firm or on behalf of another person shall attach with tender a certified copy of proper authority/power of attorney on a non-judicial stamp paper of requisite value duly executed in his favour by such person, company/firm and must state specifically that he has authority to sign such tenders for and on behalf of such person or company/firm as the case may be, and in all matters pertaining to the contract including arbitration clause.

This letter shall form part of the "**CONTRACT**" and must be signed and returned along with the tender documents.

Yours faithfully

Encl. 35 Pages

General Manager (Works)

Signature of the Contractor with stamp

Tender notice for Supply, installation, testing and commissioning of AMF panel for 500 KVA DG set at NSIC STP Complex, Okhla Industrial Estate, New Delhi -110020

TENDER NOTICE NO Ref:- SIC/ED/T/STP/SER DG 5000/12/99

Sealed item rate tenders are hereby invited on behalf of NSIC Ltd. from experienced Contractors

S. No	Name of the work	Estimated cost Rs. (Lacs)	EMD (Rs)	Comp-- letion Time	Issue of Blank Tender Document	Last Date of Submission Tender
1.	Supply, installation, testing and commissioning of AMF panel for 500 KVA DG set at NSIC STP Complex, Okhla Industrial Estate, New Delhi -110020	6.86 Lacs	14,000/-	60 days	From 02-07-2012 to 12-07-2012	13-07-2012 Up to 3.00 PM

1. Blank tender documents (non-transferable) for above work shall be issued from 02-07-2012 to 12-07-2012 on working days from the address given below on payment of required tender fee of Rs.1000/- (Rupees One thousand only) (non-refundable) in cash/DD in favour of "NSIC Ltd.", payable at New Delhi. The bidders may also download the tender documents from the website however a separate demand draft of Rs 1000/- in favour of NSIC Ltd. payable at New Delhi is to be enclosed along-with the technical bid towards the cost of tender documents.
2. The tenders should have completed minimum two works of similar nature of minimum value of Rs. 3.00 lacs each or one work of Rs. 6.00 lacs in their name, during last 5 years. Photocopies of the completion certificates/award letters should be submitted along with the tender. Completion certificate issued by the reputed organization / MNC shall also be accepted. In case of certificates issued by the private party, copies of TDS should also be enclosed. Similar nature means that bidder should have executed the work of design, supply, erection, testing and commissioning of AMF Panel/LT Panel/DG Set work.

3. Work of similar nature means “Supply, installation, testing and commissioning of AMF Panel/LT Panel/DG Set work” as mentioned in the schedule of work.
4. While applying for the tender document, the intending tenderers shall also furnish valid work contract tax /sales tax/ VAT/TIN numbers as applicable.
5. The tender issuing authority reserves the right to issue or refuse to issue the tender document to any party without assigning any reason.
6. Tenders not accompanied by Earnest Money Deposit and tender cost in the prescribed form shall be summarily rejected.
7. NSIC reserves the right to reject all or any tender wholly or partly without assigning any reason whatsoever.

General Manager (Works)

**THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.
(A GOVERNMENT OF INDIA ENTERPRISES)
Okhla Industrial Estate New Delhi -110020**

Ref: - SIC/HO/WD/1(50)/05-06

Date: 02-07-2012

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INSTRUCTIONS TO TENDERERS

1.0 GENERAL

Tenderers are advised to acquaint themselves fully with the description of work, scope of services, time schedule and terms and conditions including all the provisions of the Tender Document before framing up their tender.

2.0 SITE PARTICULARS

Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to site conditions, means of access to the site.

3.0 SUBMISSION OF TENDER

The expression "Tender Notice" referred to in the Tender Documents shall be deemed to include any Notice / Letter Inviting Tender with respect to the work forming the subject matter of the documents and vice-versa.

The tender complete in all respects shall be submitted along with Earnest Money as stipulated in the Notice / Letter Inviting Tender ONLY. Tenders without Earnest Money Deposit will be out rightly rejected.

Tenders shall be submitted in Two sealed envelopes Super scribing as following: -

1) Technical Bid

Name of work :

Tender no. :

Due date & time of opening :

Addressed to : General Manager (Works)
NSIC Ltd. NSIC Bhawan
Okhla Industrial Estate New Delhi-110020

From: Name & address of the tenderer

This envelope shall contain the following: -

EMD in the form of Demand Draft drawn on a scheduled/nationalized bank in favour of 'NSIC LTD' payable at New Delhi be accepted.

Details of the minimum two works of similar nature of value of Rs.3.00 Lacs each or one work of Rs 6.00 Lacs in their name, during last five years. Photocopies of the completion certificates/award letters should be submitted along with the tender. Completion certificate issued by the reputed organization / MNC shall also be accepted. In case of certificates issued by the private party, copies of TDS should also be enclosed.

Valid registration with Sales Tax department for Work Contract Tax/VAT/TIN.

Registration with Central/State Government Department and PSU's in appropriate class upto the limit of estimated cost.

Tender cost in requisite form if tender down loaded from the Website.

II) Price Bid

This envelope shall contain the tender document with **PRICES and amount duly filled by the party against each item prescribed in the Schedule of quantity of tender document** and no conditions (i.e. deviations / assumptions / stipulations / clarifications / comments / any other request) whatsoever and the conditional offers will be rejected.

3.1 Essentially qualifying criteria

Tenderer should submit the following documents with Technical bid.

- 1.) EMD in requisite form
- 2.) Tender cost in requisite form if tender is downloaded from NSIC website.
- 3.) Experience certificates /completion certificates.

4.0 ABNORMAL RATES

If it is noticed that the unit rates quoted by the Tenderer for any items are unusually high or unusually low, it will be sufficient cause for rejection of the tender unless the Corporation is convinced about the reasonableness of the unit rates on scrutiny of the analysis for such unit rate to be furnished by the tenderer on demand.

5.0 DEVIATIONS TO TENDER CLAUSES:

Tenderers are advised to submit the tenderers strictly based on the terms and conditions and specification contained in the Tender Documents and not to stipulate any deviations. Conditional tenders are liable to be rejected.

6.0 VALIDITY OF OFFER

Tender submitted by tenderers shall remain valid for acceptance for a minimum period of 90 days from the date of opening of the tenders.

7.0 AWARD OF WORK

Corporation reserves the right to split the job into two or more parts and to award the work to separate agencies/contractors. Work shall be awarded to the lowest bidder, subject to the work experience and fulfillment of other terms & conditions and specifications.

8.0 ACCEPTANCE / REJECTION OF TENDER

- i) Corporation does not bind itself to accept the lowest tender.
- ii) Corporation also reserves the right to accept or reject any tender in part or full without assigning any reason whatsoever.
- iii) Corporation also reserves the absolute right to reject any or all the tenders at any time solely based on the past unsatisfactory performance by the bidder(s) the opinion/decision of NSIC regarding the same shall be final and conclusive.

9.0 CORRECTIONS

No corrections or overwriting will be entertained in schedule of rates by using correcting fluid. All correction in the schedule of rate should be initialed.

10.0 FIRM RATES

The rates quoted by bidder shall remain firm till completion of all works even during the extended period, if any, on any account what so ever. It is provided that the contractor shall not change any of the rates, quoted in the tender till the completion of work.

General Manager (Works)

GENERAL CONDITIONS OF CONTRACT

1. Where the context so requires, words importing the singular only also include the plural and vice versa.
2. Corporation shall mean 'The National Small Industries Corporation Ltd. (A Government of India Enterprise) "NSIC Ltd.,NSIC Bhawan ,Okhla Industrial Estate, New Delhi-110020 and shall include their legal representatives, successors and permitted assigns.

3. Inspection of Site:

The Contractor shall inspect and examine the Site and its surroundings and shall satisfy himself before submitting his tender as to the nature of the Site, the quantities and nature of work and material necessary for the completion of the Works and the means of access to the Site, the accommodation he may require and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect this tender.

4. Sufficiency of Tender:

The Contractor shall be deemed to have satisfied himself before tendering as to the Correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion of the Work.

5. Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the Works comprised therein according to drawings and specifications or from any of his obligations under the Contract.

In the event of an error occurring in the amount column of Schedule of Quantities as a result of wrong extension of the unit rate and quantity the unit rate shall be regarded as firm and extension shall be amended on the basis of the rate.

All errors in totaling in the amount column and in carrying forward totals shall be corrected.

6. Security Deposit:

Total security deposit shall be 10 % of the accepted tender cost and shall be deposited within ten (10) days of receipt of the letter of intent/notification of acceptance of the tender by him. The earnest money deposited shall be converted into initial security deposit.

- 6.1 All compensation or other sums of money payable by the contractor under the terms of this Contract or any other Contract or any other account whatsoever may be deducted from the security deposit.
- 6.2 Refund **of Security deposit**: Security deposit refundable to the Contractor worked out on the basis of the value of work completed shall be refunded to the Contractor after defect liability period of 12 months on the Engineer-In-Charge certifying in writing that the work has been completed satisfactorily.
- 6.3 No interest shall be payable to the contractor on the Security Deposit furnished/ recovered from the contractor, by the Corporation.

7 Deviations/Variations Extent and Pricing

The Engineer-in-charge shall have power (i) to make alteration, in omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

- 7.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended if requested by the contractor, as follows:
 - i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
 - ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

8. Deviation, Extra Items and Pricing Rates for Extra/ Additional Items

- i) If the rate for additional, altered or substituted item of work is specified in the Schedule of Quantities, the Contractor shall carry out the additional, altered or substituted item at the same rate.
- ii) If the rate for any altered, additional or substituted item of work is not specified in the schedule of Quantities, the rate for that item shall be derived from the rate for the nearest similar item specified therein.
- iii) If the rate for any altered, additional or substituted item of work cannot be determined in the manner specified in sub-paras (i), and (ii) above, the contractor shall, within 7 days of the date of receipt of the order to carry out the said work, inform the Engineer-in-Charge under advice to the Accepting Authority of the rate which he proposes to claim for such item of work, supported by analysis of the rate claimed, and the Engineer-in-Charge shall, within fifteen days thereafter, after giving due consideration to the rate claimed by the Contractor determine the rate on the basis of market rate(s). In the event of the contractor failing to inform the Engineer-in-Charge within the stipulated period of time, the rate which he proposes to claim, the rate for such item shall be determined by the Engineer-in-Charge on the basis of market rate(s) and the same shall be final. Payment of such items shall be made accordingly.

9.0 Time and Extension for Delay:

- 9.1 The time allowed for execution of the works as specified in the Appendix or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from the 10th day after the date on which the Corporation issues written orders to commence the work or from the date of handing over of the site, which ever is earlier.
- 9.2 As soon as possible after the Contract is concluded the Engineer-in-Charge and the Contractor shall agree upon a Time and Progress Chart. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works.
- 9.3 If the work be delayed by
 - (a) Force majeure or
 - (b) Abnormally bad weather or

- (c) Serious loss or damage by fire, or
- (d) Civil commotion, local combination of workmen strike or lockout, affecting any of the trades employed on the work, or
- (e) Delay on the part of other contractors or tradesmen engaged by Corporation in executing work not forming part of the contract, or
- (f) Any other cause, which, in the absolute discretion of the authority mentioned in Appendix, is beyond the Contractor's control;

9.4 Then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the Works.

10 The Contractor shall arrange, at his own expense, all tools, plant and equipment hereafter referred to as (T & P) labour, P.O.L. & electricity/water required for execution of the work.

11 **FORCE MAJEURE**

Any delays in or failure of the performance of either party herein shall not constitute default hereunder or give rise to any claim for damages, if any, to the extent such delays or failure of performance is caused by occurrences such as Act of god or the public enemy; expropriation or confiscation of facilities by Government authorities, or in compliance with any order or request of any Governmental authorities or due acts of war, rebellion or sabotage or fires, floods, explosions, riots or illegal joint strikes of all the workers of all the contractors.

12 **MATERIALS**

All materials to be provided by the Contractor shall be in conformity with the specifications laid down in the contract and the Contractor shall, if requested by the Engineer-in-Charge, furnish proof to the satisfaction of Engineer-in-Charge in this regard.

13 **Labour:**

a.) The Contractor shall employ its labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-

Charge. The Contractor shall not employ in connection with the Works any person who has not completed eighteen years of age.

b.) All the workers or employees deployed by the contractors shall consider the employees of contractor and corporation shall not have any liability what so ever in nature in regard to such workers/employees.

c.) The Contractor shall pay to labour employed by him directly wages not less than fair wages as per Minimum Wages Act. Fair Wage' means wages, which shall include wages for weekly day of rest and other allowances whether for time or piece work, after taking into consideration prevailing market rates for similar employment in the neighborhood but shall not be less than the minimum rates of wages fixed under the payment of Minimum Wages Act.

d.) The Contractor shall in respect of labour employed by him or his sub-contractor comply with or cause to be complied with the Contractor Labour Regulation in regard to all matters provided therein.

e.) The Contractor shall comply with the provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948, Employers' Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefit Act, 1970 or any modification thereof or any other law relating thereto and rules made there under from time to time.

f) The Contractor shall indemnify and keep indemnified the Corporation against:

i) Any claim arising out of third party loss/ damage to life or property caused by/ during execution of the work.

ii) Any claim arising out of loss/ damage to the workmen engaged by the Contractor during execution of the work.

iii) Any claim due to non-compliance of applicable PF/ Labour laws, ESI Regulations etc.

14 Inspections and Approval:

All work embracing more than process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice to the Engineer-in-Charge or his authorized representative when each stage is ready. The Engineer-in-Charge or his representative shall have powers at any time to inspect and examine any part of the Works and the contractor shall give such facilities as may be required for such inspection and examination, at manufacturers works if necessary.

15 Liquidated Damages for Delay

Time is essence of the contract. In case the CONTRACTOR fails to complete the whole work within the stipulated period, and clear the site he shall be liable to pay liquidated damages @ 0.5% (One Half of one percent only) of the value of contract per week and or part thereof of the delay subject to a maximum of 10% (ten percent only) of the value of the contract. The amount of Compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Corporation.

16 Instruction and Notices:

- 16.1 Subject as otherwise provided in this contract, all notices to be given on behalf of the Corporation and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge.
- 16.2 All instructions, notices and communications, etc., under the contract shall be given in writing and if sent by registered post to the last known place of abode or business of the Contractor shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him.
- 16.3 Foreclosure of Contract in Full or in Part due to Abandonment or Reduction in Scope of Work.

If at any time after acceptance of the tender the Corporation shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the Works to be carried out the Engineer-in-Charge shall give notice in writing to that effect to the Contractor and Contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

- 16.4 The Contractor shall be paid at Contract rates full amount for works executed at Site as certified by the Engineer-in-Charge.

17 Cancellation of Contract in Full or in Part:

- If the Contractor:
- a. At any time makes defaults in proceeding with the Works with due negligence and continues to do so even after a notice in writing of 7 days from the Engineer-in-Charge; or
 - b. Commits default in complying with any of the terms and conditions of Contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
 - c. Fails to complete the works or items of work on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or
 - d. Violates any of the terms and conditions stipulated in this agreement
 - e. Being a company, passes a resolution or the Court makes an order for liquidation of its affairs, or a receiver or manager on behalf of the debenture holders is appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or

18 Liability for Damage, Defects or Imperfections and Rectification thereof:

If the Contractor or his workmen or employees shall injure or destroy any part of the building in which they may be working or any building, road, fence, etc. contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while in progress the Contractor shall upon receipt of a notice in writing in that behalf make the same good at his own expense. In case of repairs and maintenance works, splashes and dropping from white washing, painting, etc. shall be removed and surfaces cleaned simultaneously with completion of these items of work in individual rooms, cabins or premises, etc. where the work is done, without waiting for completion of all other items of work in the contract. In case the Contractor fails to comply with the requirements of this condition, the Engineer-in-Charge shall have the right to get the work done by other means at the cost of the Contractor. Before taking such action, however, the Engineer-in-Charge shall give three days notice in writing to the Contractor.

19 Urgent Works:

If any Urgent work (in respect whereof the decision of the Engineer-in-Charge shall be final and binding) becomes necessary and Contractor is unable or unwilling at once to carry it out, the Engineer-in-Charge may by

his own or other workpeople carry it out, as he may consider necessary. If the urgent work shall be such as the Contractor is liable under the contract to carry out at his expenses, the expenses incurred on it by the Corporation shall be recoverable from the Contractor and be adjusted or set off against any sum payable to him.

20 VALUATIONS AND PAYMENT:

- 20.1 The Engineer-in-Charge shall accept as otherwise stated ascertain and determine by measurement the value in accordance with the contract work done in accordance therewith.
- 20.2 All items having a financial value shall be entered in Measurement Book, etc. prescribed by the Corporation so that a complete record is obtained of all work performed under the contract.
- 20.3 Payments against running bills may be released subject to value of work executed and measured being not less than Rs. 2.00 lac.
- 20.4 Payment will be made on actual measurement basis as carried out at the site. The quantities given in the schedule of quantities are only approximate and contractor will have to carry out the work as per the increased/decreased quantity of work as per the directions of Engineer-in-Charge, for which no extra claim over and above the tender rate will be considered. For releasing the payment up-to accepted tender amount the General Manager (Works) is the approving authority.
- 20.5 The Contractor shall, without extra charge, provide assistance with every appliance, labour and other things necessary for measurements. In regard to measurement, variation; the decision taken by the Engineer-in-charge shall be final.
No escalation will be paid even in extended period, if any.
- 20.6 All measurements shall be taken jointly by the Engineer-in-charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-charge and the parties. If the Contractor objects to any of the measurements recorded on behalf of the Corporation a note to that effect shall be made in the Measurement Book against the item object to and such note shall be signed and dated by all the parties engaged in taking the measurement. The decision of the Competent Authority on any such dispute or difference or interpretation shall be final and binding on both the parties and shall be beyond the scope of the settlement of disputes of Arbitration in respect of all contract items, substituted items, extra items and deviations.

20.7. All statutory deductions as applicable like TDS, sales tax/VAT shall be made from the due payment of the contractor.

21 Methods of Measurement:

Except where any general or detailed description of the work in Quantities expressly shows to the contrary, Schedule of Quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the Schedule of Rates / Specification notwithstanding any provision in the relevant Standard Method of Measurement or any general or local custom.

22 Income Tax/WCT/VAT

22.1 Income tax including surcharge if any, at the prevailing rate shall be deducted from the Contractor's bills as per the provision of Income Tax Act.

22.2 The Contractor shall ascertain from the concerned commercial tax department regarding the applicability of Works Contract Tax / VAT/TIN. Necessary deductions will be made from the contractor's bill as applicable.

23 Carrying out part work at risk & cost of contractor

The Engineer-in-charge without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to the Corporation, by a notice in writing to take the part work/ part incomplete work of any item(s) out of his hands and shall have powers to:

- a) Take possession of the site and any materials, constructional plant, implements, Stores etc., thereon; and/or
- b) Carry out the part work/ part incomplete work of any item(s) at the risk and cost of the contractor.

Any excess expenditure incurred or to be incurred by the Corporation in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by the Corporation as aforesaid without prejudice to any other right or remedy available to Corporation in law or as per agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the

dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provision of the contract.

In the event of above course being adopted by the Engineer-in-charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

24 ARBITRATION AND LAWS

Arbitration:

Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used onto work or as to any other question, claim right matter or thing whatsoever in any way arising out of or relating to the contract, designs drawings, specifications, estimates, instructions, orders and these conditions or otherwise concerning the works, or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Chairman-cum-Managing Director of the National Small Industries Corporation Ltd. and if the Chairman-cum-Managing Director is unable or unwilling to act, to the sole arbitration of some other person appointed by the Chairman cum Managing Director, National Small Industries Corporation Ltd. willing to act as such arbitrator. There will be no objection if the arbitrator so appointed is an employee of the National Small Industries Corporation Ltd. and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he had expressed views on all or any of the matters in dispute or difference. The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason as aforesaid at the time of such transfer, vacation of office or inability to act., Chairman and Managing Director, National Small Industries Corporation Ltd. shall appoint another person to act, as arbitrator in accordance with the terms of the Contract. It is also a term of this contract that no person other than a person appointed by C.M.D., National Small Industries Corporation LTD., as aforesaid should act as arbitrator and if for any reason, that is not possible, the matter is not to be referred to arbitration at all.

Subject as aforesaid the provision of the Indian Arbitration and Reconciliation Act, 1996, or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is a term of the contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

The arbitrators may from time to time with consent of this party enlarge the time, for making and publishing the award.

The work under the contract shall, if reasonably possible continue during the arbitration proceedings and so payment due to payable to the Contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both parties fixing the date of the first hearing. The Arbitrator shall give a separate award in respect of each dispute of difference referred to him.

The venue of arbitration shall be such place as may be fixed by the Arbitrator in sole discretion.

The award of the arbitrator shall be final, conclusive and binding on all parties to this contract.

The cost of arbitration shall be borne by the parties to the dispute, as may be decided by the arbitrator(s).

The Indian Laws shall govern this contract for the time being in force. The courts at New Delhi / Delhi only shall have the jurisdiction

General Manager (Works)

SIGNATURE OF THE CONTRACTOR

FORM OF TENDER

To

General Manager (Works)
NSIC Ltd., NSIC Bhawan
Okhla Industrial Estate,
New Delhi-110020

I/We have read and examined the following documents relating to.....

.....

.....

(Name of the Work)

- a). Notice inviting tender.
- b). Instructions to Tenderers
- c). Technical Specifications
- d). General Conditions of Contract including Contractors, Labour Regulations, Model Rules for Labour Welfare and Safety Code appended to these conditions together with the amendments thereto if any.
- e). Special Conditions of contracts if any.
- f). Bill of Quantities

I/We hereby tender for execution of the works referred to in the aforesaid documents upon the terms and conditions contained or referred to therein and in accordance in all respects with the specifications, designs, drawings and other relevant details at the rates contained in Schedule and within the period(s) of completion as stipulated in Appendix.

In consideration of I/We being invited to tender, I/We agree to keep the tender open for acceptance for 120 days from the due date of submission thereof and not to make any modifications in its terms and conditions which are not acceptable to the Corporation.

A sum of Rs 14000/- is hereby forwarded as Earnest Money Deposit in the form of Demand Draft in favour of NSIC Ltd. payable at New Delhi . If I/We fail to keep the tender open as aforesaid or make any modifications in the terms and conditions of the tender which are not acceptable to the Corporation, I/We agree that the Corporation shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Should this tender be accepted, I /We agree to abide by & fulfill all the terms conditions of aforesaid document.

If after the tender is accepted, I/we fail to commence the execution of the work as provided in the conditions. I/We agree that Corporation shall without prejudice to any other right or remedy is at liberty to forfeit the said earnest money absolutely.

Signature of contractor.....

Duly authorized to sign the tender on behalf of the (in block capitals).....

.....

Dated.....

Witness.....

Date.....

Address.....

.....

APPENDIX

- | | |
|---|---|
| 1. Competent Authority | C.M.D. NSIC or his
Authorized Executive |
| 2. Earnest money/Security deposit | |
| a) Estimated cost of the Works | Rs. 6.86 Lacs |
| b) Earnest money | Rs 14000/- in the form of
DD /Pay order in favour
of NSIC Ltd.,New Delhi |
| c) Security Deposit | 10% of the contract value. |
| 3. Deviation limit for items of work | |
| Deviation limit beyond which clause 8
shall apply for the building / Development work | 30% |
| 4. Time allowed for execution of work | 30 Days |
| 5. Authority competent to grant extension
of time for any cause of delay which
is beyond Contractor's control | GM (Works) New Delhi |
| 6. Liquidated Damages | 0.5% (one half of one
Percent) per week subject
to a Maximum 10% value of the
contract |
| 7. Approving Authority for releasing the payment
up to the accepted tender cost. | GM (Works) NSIC Ltd
New Delhi |
| 8. Defect Liability Period | 12 months from the date
of Completion of work. |
| 9. Authority competent to reduce
Compensation | GM (Works) NSIC Ltd.
New Delhi |

(Signature of the Contractor)

SPECIAL CONDITIONS

1. Any facility not mentioned in this scope, but which is vital for erection and commissioning of AMF Panel is assumed to be included in the scope of work.
2. Electricity, if required, for erection at site will be provided free of cost at NSIC substation. However, cable, T &P etc will have to be managed by the contractor
3. Contractor has to ensure safety and provide adequate supervision.
4. During working at site, some restrictions may be imposed by Engineer-in-Charge/Security staff of Corporation or Local Authorities regarding safety and security etc., the contractor shall be bound to follow all such restrictions/instruction & nothing extra shall be payable on this account.
5. No compensation shall be payable to the contractor for any damage caused by rains lightening, wind, storm, floods Tornado, earth quakes or other natural calamities during the execution of work. He shall make good all such damages at his own cost; and no claim on this account will be entertained.
6. The tender shall be based on Conditions of Contract and tenderers are required to quote their own rates against each item in schedule of quantities, which is enclosed. All rates shall remain firm for the contract period/extended contract period.
7. If the contractor fails to proceed with the work within the stipulated time as specified from the date of issue of letter of intent/letter to proceed with the work, the Corporation shall forfeit the earnest money deposited by him along with the tender.
8. All the works to be carried out in accordance with latest CPWD/BIS Specifications and as per the directions of Engineer-in-charge.
9. **COST OF TESTS**
The contractor is bound to carry out the tests as per the CPWD/BIS/Applicable codes guidelines for ascertaining the quality of the works executed/ materials used as and when directed by the Engineer-in-charge. The cost of preparing samples and carrying out tests for quality of material or workmanship will be borne by the contractor except for such exclusions as are specifically mentioned in the specifications laid down in the contract. The cost of all test carried out in Laboratories as directed by the Engineer-in-charge will be borne by the contractor.

General Manager (Works)

SIGNATURE OF THE CONTRACTOR

Schedule of Quantities

Sl. No	Description of work	Qty	Rate (Rs.)	Amount (Rs.)
1.	Fabrication, Installing, Testing & Commissioning of automatic mains failure control including auto by pass panel, suitable for 500 KVA DG Set complete with relays, timers, set of CTs for metering & protection and energy analyzer to indicate currents, phase and line voltages, frequency, power factor, KWH, KVARH, KVAH & provision for overload, short circuit, restricted earth fault, under frequency, control cabling from AMF panel to diesel engine and elsewhere if required, all complete and inter locking, connecting the existing power cables including the following:-	One set		
a).	02 nos, 1000 amps, 4-pole Motorized electrically operated draw out with cradle type 3 position ACB with electronic microprocessor release for O/C & E/F and shunt trip under voltage facility. Make: ABB-EMAX/ Siemens 3WL/L&T-U-Power/ GE-entligaurd/Scheniders			
b)	Auto/Manual/Test/Off selector switch Make: Ceilzer/L&T/Havells			
c)	02 Nos. overvoltage relay, 2 nos. reverse power relay and 2 Nos. under voltage relay. Make: L&T/ABB/AE/Kappa/Schneider			

d)	03 sets of current transformers 15 P10 accuracy for protection and 15 VA class-I for metering. Make: AE/L&T			
e)	Energy analyzer unit to indicate current, voltage, frequency, power factor, KVAH, KVARH and KWH. Make:Trinity/Conser			
f)	Indicating lamps for load on mains and load on DG set. Make: GE/ABB/L&T			
g)	SP MCBs for instruments Make: GE/L&T/ABB/Havells etc			
h)	Battery charger, complete with transformer/rectifier, D.C. Voltmeter and ammeter, selector switch for trickle, off and boost and current adjustment. Make: System control/AE			
i)	Main supply failure monitor make: L&T/Siemens/ABB/PIC/CSPC			
j)	Supply failure timer make: L&T/Siemens			
k)	Restoration timer make: L&T/Siemens			
l)	Control unit with three impulse automatic engine start/stop and failure to start lockout. make: L&T/Siemens			

m)	Impulse counter with locking and reset facility. make: L&T/Siemens			
n)	ON/OFF/Control circuit switch with indicator make: L&T/Siemens			
o)	Audio/Video annunciation for (i) High water temperature (ii) Low lubricating oil pressure (iii) Engine over speed (iv) Engine fails to start (v) Full load/maximum load warning make: L&T/Siemens			
p)	DG hour meter make: Trinity or equivalent			
2.	Supply and laying of one number PVC insulated & PVC sheathed/ XLPE aluminum conductor power cable of 1.1 KV Grade of size of 3.5x300 sqmm in the existing RCC/HUME/STONE WARE/METAL Pipe as required. Make: Havells/gloster/universal	75 mtr		
3.	Supply & laying of one number PVC insulated & PVC sheathed/XLPE Al. Conductor power cable of 1.1 KV Grade of size of 3.5x300 sqmm on surface, as required. Make: Havells/gloster/universal	50 mtr		
4.	Providing and fixing 6 SWG dia GI wire on surface or in recess for loop earthing along with existing surface/recessed conduit/submain wiring/cable as required.	100 mtr		

5.	Supplying and making end termination with brass compression gland and aluminium lugs for XLPE insulated PVC Sheathed Aluminium conductor cable of 1.1 KV Grade of 3.5x300 sqmm cable (70mm) as reqd.	6 set		
6.	De-installation of old AMF Panel along with all its incomer and out going cables, restretching of old cable etc. complete work as reqd.	One job		
7.	Making of foundation platform of suitable size for above mentioned AMF Panel with cement concrete of 1:1.5:3 complete as required.	One job		
8.	Supply and laying of 150mm GI Pipe in ground 75 cm below ground level including excavation and refilling the same etc complete as required. Make:Jindal/Tata	10 mtr		
	Total:			

Total amount in words-----

DETAILED TECHNICAL SPECIFICATION FOR AMF Panel

A. Operation:-

1. When mains is healthy, the Mains ACB should be ON.
2. When Mains supply is unhealthy i.e. phase failure, under voltage, overvoltage and no voltage, the mains ACB Should trip. The DG should start automatically, develop the voltage and connect the DG Breaker to load.
3. When the main is restored, the relay should monitor the mains for healthiness for 05 minutes. Disconnect the DG Supply and connect the mains ACB ON.

The DG should stop after 1 minute (cool off time) and should go on stand by mode again.

B. General Features:

The AMF panel 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 different applications will be housed in compartments. All incoming and outgoing power and control cables shall be from the bottom or back side.
- ✓ Panel will be equipped with the following:-
 - 2 nos. 4 pole, 1000Amp ACB EDO type
 - 1 set of CTs for Metering

Energy analyzer/composite meter for digital display of

- current
- Voltage
- Frequency
- KWH
- KW/ PF
- KVAH
- KVARH

✓ 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
- Hour indication meter

C. Terminal Blocks and wiring

Terminal blocks of robust type and generally not less than 15 amps capacity, 250/500 volts grade for DC upto 100 volts and 660/1100 volts grade for AC and rest of the junction shall be employed in such a manner so that they are freely accessible for maintenance. All control and small wiring from unit to unit inside the panel shall also be done with not less than 2.5 sqmm copper conductor PVC insulated and 660/1100 volts grade. All ends shall be identified with ferrules at the ends.

D. Labeling:

All internal components shall be provided with suitable identification labels suitably engraved. Labels shall be fixed on buttons, indication lamps etc.

E. Painting:

The entire panel shall be given primer coat after proper treatment and powder coating with 7 tank process before assembly of various items.

F. Equipment requirements:-

The control cubical shall incorporate into assembly general equipment and systems as under:-

- a) Control system equipments and components such as relays, contactors, timers etc. both for automatic operation on main failure and as well as for manual operation.
- b) Equipments and components necessary for testing generating sets healthiness with test mode and with load on mains.
- c) Necessary instruments and accessories such as voltmeter, power factor meter, KW meter, KVAH/KWH Meter, Ammeter, Frequency meter etc. in one energy analyzer unit with selector switch to obtain the readings of desired parameters.
- d) Necessary indication lamps, fuses, terminal blocks, push buttons, control switches etc as required.
- e) Necessary engine/generating set shut down devices due to faults/abnormalities.
- f) Necessary visual audio alarm indication and annunciation facility, as specified.
- g) Necessary battery charger.
- h) Necessary excitation control and voltage regulating equipment.
- i) Breakers as specified in the schedule of work.

G. System Operation:-

G.1 Auto mode:

- a) A line voltage monitor shall monitor supply voltage on each phase. When the mains supply voltage fails completely or falls below set value (variable between 80 to 95% of the normal value) on any

phase, the monitor module shall initiate start up of diesel engine. To avoid initiation due to momentary disturbance, a time delay adjustment between 0 to 5 second shall incorporated in start up initiation.

- b) A three attempt starting facility shall be provided 6 seconds ON, 5 seconds OFF, 6 seconds ON, 5 seconds OFF, 6 seconds ON. If at the end of the third attempt, the engine does not start, it shall be locked out of start and a master timer shall be provided for this function. Suitable adjustment timers are to be incorporated which will make it feasible to vary independently ON-OFF setting periods from 1-10 seconds. If alternator does not build up voltage after the first or second start as may be further starting attempt will not be made until the starting facility is reset.
- c) Once the alternator has built up voltage, the alternator circuit breaker shall close connecting the load to the alternator. The load is now supplied by the alternator.
- d) When the main supply is restored and is healthy as sensed by the line voltage monitor setting, both for under voltage and unbalance, the system shall be monitored by a suitable timer which can be set between 1 minute to 10 minute for the load to be transferred automatically to main supply.
- e) The diesel alternator set reverts to standby for next operation as (a), (b) and (c) above.

G.2 Manual mode:-

- a) In a manual mode, it shall be feasible to start-up the generator set by the operator on pressing the start push button.
- b) Three attempts starting facility shall be operative for the start-up functions.
- c) Alternator circuit breakers closing and trip operations shall also be through operator only by pressing the appropriate button on the panel and closure shall be feasible only after alternator has built up full voltage. If the load is already on 'mains', pressure on 'close' button shall be ineffective.
- d) Engine shut down, otherwise due to faults, shall be manual by pressing a 'stop' button.

G.3 Test mode:

- a) When under 'test' mode, pressing of 'test' button shall complete the start up sequence simulation and start the engine. The simulation will be that of mains failure.
- b) Engine shall build up voltage but the set shall not take load by closing of alternator circuit breaker. When the load is on the mains, monitoring of performance for voltage/frequency etc. shall be feasible without supply to load.
- c) It during test mode, the power supply has failed; the load shall automatically get transferred to alternator.
- d) Bringing the mode selector to auto position shall shut down the set as main supply is ON. If the main supply is not available at that time, the alternator shall take load.

H. Engine shut down and alternator protection equipments:-

Following shut down and protection system shall be integrated in the control panel:-

- a) Engine:-
 - i) Low lubrication oil pressure shut down. This shall be inoperative during start up and acceleration period.
 - ii) High coolant (water) temperature shut down.
 - iii) Engine over speed shut down.
- b) Alternator protection:-
 - i) Over load
 - ii) Short circuit
 - iii) Earth fault
 - iv) Over voltage

I. Monitoring and metering facilities:-

- a) Necessary energy analyzer unit for visual monitoring of mains, alternator and load voltage, current, frequency, KWH, Power factor etc.
- b) a set of visual monitoring lamp indication for
 - i) load on set
 - ii) load on mains

- iii) Set on test (alternator on operation duty, alternator on standby duty).
- iv) Set of lamp for engine shut down for over speed, low lube oil pressure and high coolant water temperature, overload trip of alternator, earth fault trip of alternator, engine lock out and failure to start etc. all these indications shall have an audio and visual alarm, when operator accepts the alarm, the hooter will be silenced and the fault indication will become steady until reset by operating a reset button.

J. Operating devices:-

A set of operation devices shall be incorporated in the front of panel as under:-

- a) Master engine control switch: this shall cut off in 'OFF' position DC control to the entire panel, thus preventing start-up of engine due to any cause. However, battery charger and lamp test button for testing the healthiness of indication lamps, DC volt meter/ammeter etc. shall be operative. It shall be feasible to lock the switch in OFF position for maintenance and shut down purposes.
- b) Operation selectors switch OFF/AUTO/MANUAL/TEST position.
- c) Energy analyzer unit for display of various electrical parameters like voltage, current, frequency, KW, power factor etc.
- d) A set of push button as specified.
- e) Relays, contactor, timers, circuit breakers as required.
- f) Necessary battery charger with boost/trickle selector, DC voltmeter and DC ammeter.

LT CABLES

GENERAL

L.T. Cables shall be supplied, inspected, laid, tested and commissioned in accordance with drawings, specifications, relevant Indian Standards, CPWD specifications and cable manufacturer's recommendations. The cable shall be delivered at site in original drums with manufacturer's name clearly written on the drums. The recommendations of the cable manufacture with regard to jointing and sealing shall be strictly followed.

MATERIALS

The LT Power Cables shall be XLPE insulated PVC sheathed aluminum conductor armored cable conforming to IS:7098 : Part -1:1988 with up-to-date amendments.

Make: Havells, Gloster, Universal or Equivalent as approved by the Engineer Incharge.

INSTALLATION OF CABLES

Cables shall be laid directly in ground, pipes, masonry ducts, on cable tray, surface of wall etc. as indicated in BOQ and/or as per the direction of Engineer-in-charge, and as per CPWD specifications.

INSPECTION

All cables shall be inspected at site and checked for any damage during transit.

JOINTS IN CABLES

The contractor shall take care to see that the cables received at site are apportioned to various locations in such a manner as to ensure maximum utilization and avoiding of cable joints. This apportioning shall be got approved from Engineer-in-charge before the cables are cut to lengths.

LAYING CABLES IN GROUND

Cables shall be laid by skilled experienced workmen using adequate rollers to minimize stretching of the cables. The cable drums shall be placed on jacks before unwinding the cable. With great care it shall be unrolled on over wooden rollers placed in trenches at intervals not exceeding 2 meters. Cables and other accessories shall be laid as per CPWD specification and other relevant IS Codes.

At all changes in direction in horizontal and vertical planes, the cables shall be bent smooth with a radius of bent not less than 12 times the diameter of cables. Minimum 3 metre long loop shall be provided at both end of cable.

Distinguishing marks may be made on the cable ends for identifications of phases. Insulation tapes of appropriate voltage and in red, yellow and blue colours shall be wrapped just below the sockets for phase identifications.

PROTECTION OF CABLES

The cables shall be protected by bricks laid on the top layer of the sand for the full length of underground cable. Where more than one cables is laid in the same trench, the bricks shall cover all the cables and shall project a minimum of

approximately 80mm on either side of the cables. Cable under road crossings and any other places subject to heavy traffic shall be protected by running them through Pipes of suitable size.

EXCAVATION & BACK FILL

All excavation and back fill required for the installation of the cables shall be carried out by the Contractor in accordance with the drawings and requirements laid down elsewhere. Trenches shall be dug true to line and grades. Back fill for trenches shall be filled in layer not exceeding 150 mm. Each layer shall be properly rammed and considered before laying the next layer.

The contractor shall restore all surface, roadways, side walks, kerbs wall or the works cut by excavation to their original condition to the satisfaction of the Engineer-in-Charge.

TESTING OF CABLES

Prior to installation, buying of cables, following tests shall be carried out. Insulation test between phases, phase & neutral, phase & earth for each length of cable.

- a. Before laying
- b. After laying
- c. After jointing

On completion of cable laying work, the following tests shall be conducted in the presence of the Engineer-in-Charge.

- a. Insulation Resistance Test (Sectional and overall)
- b. Continuity Resistance Test
- c. Earth Test

All tests shall be carried out in accordance with relevant Indian Standard code of practice and Indian Electricity Rules. The Contractor shall provide necessary instruments, equipments and labour for conducting the above tests & shall bear all expenses of conducting such tests.

PROTECTIVE EARTHING

The scope of work shall cover earthing stations, laying copper/GI earth strips and connecting the power panels, DBs and switch boards.

The work shall be done as per the CPWD specification

Materials of which the protective system is composed shall be resistant to corrosion or be adequately protection against corrosion. All apparatus and equipment transmitting or utilizing power shall be earthed.