Tender Ref: SNB/ENG/NIT/2013-14/06/019
July 2013

S N BOSE NATIONAL CENTRE FOR BASIC SCIENCES

ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS
PART - I

1 INVITATION TO TENDER

Sealed Tenders are invited from experienced and resourceful firms by S N Bose National Centre for Basic Sciences (SNBNCBS) for “ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98”

1.1 Submission

1.1.1 Offers are to be submitted for the subject work in two bid system as explained herein. The sealed tender document, duly filled in, shall be submitted in the Tender Drop Box kept at the reception of S N Bose National Centre for Basic Sciences, Kolkata - 700098 (“the Centre” in short).

1.2 Tender Documents

1.2.1 Tender Documents can be downloaded from the Centre’s official Website: www.bose.res.in Bidders may visit the website for latest updates of this tender.

1.2.2 Amendment of Tender Documents: The Centre may modify the Tender Documents before the last date for submission of tenders by issuing Addenda which shall be part of the Tender Documents and the same will be published in the Centre’s website.

1.3 Earnest Money

No Tender shall be considered which is not made in the prescribed form and which is not accompanied by a deposit of Rs. 50,000 (Rupees fifty thousand) as Earnest Money. Earnest Money Deposit will be accepted only in the form of Crossed Account Payee Banker’s Cheque or Demand Draft or Banker’s Pay Order from Nationalised /schedule Banks payable at Kolkata and drawn in favour of “S N Bose National Centre for Basic Sciences, Kolkata - 700098” This shall be placed in an envelope, clearly super-scribed with Tender number, title and “Earnest Money Deposit” in bold letters. EMD in cash will not be accepted. The offer shall be submitted by the Tenderer in manner explained herein.

1.4 Validity

The Price Offer must be valid for 90 days from the date of opening of the Technical Cover of the Tender; otherwise the same will not be considered at all.

1.5 Due Date

The due date of Tender Submission is 31st July 2013 (1400 hrs IST) and the Technical Cover will be opened on the same day at 15-00 hours.

1.6 Rejection

If the offers are not received according to the instructions detailed herein, they shall be liable for rejection. The corrections and remarks shall be either typewritten or legibly written and signed.

Campus Engineer cum Estate Officer

S N Bose National Centre for Basic Sciences
Sector-III, Block-JD, Salt Lake
Kolkata – 700098
2. WORK DESCRIPTION AND SCOPE OF WORK

2.1 Work requirements

2.1.1 The work included in this Tender comprises the following:

2.1.2 Supply, Erection and Testing - Commissioning of Electrical Panels including all necessary peripherals, cabling and temporary & enabling works as per schedule of works enclosed following relevant Indian / International standards and best Engineering practices. The proposed electrical power supply work will serve as a dedicated source of power for the upcoming Computing facility from Sub-Station to Computer Centre at Main Building. Hence, suitable cable termination at the change over switching also needs to be provided.

2.1.3 Documentation for all the equipment, including technical specification, operation and maintenance manuals, test certificates, warranty certificates, installation report shall be provided.

2.1.4 A Guarantee against damage or failure due to defects in design, material, manufacture and workmanship for the duration of the Defect Liability Period of 12 calendar months shall be provided.

2.2 Site Familiarisation

Before quoting, the Tenderer in his own interest shall carry out site visits to know the site conditions and full implications of the assignment. This will also help him in proper assessment of the work. Failure to do so will not absolve the contractor of his responsibility to carry out the work as specified in the Tender Documents. The cost of visiting the site shall be borne by the Tenderer and shall be at his own responsibility and risk.

2.3 Tender Costs

The Centre will not reimburse any costs incurred by the Tenderer towards preparation and submission of the Tender.

2.4 Site Consultations

The work shall be carried out in consultation with the Centre’s Engineering Section.

2.5 Specification for Cable Laying:

Trenches shall be 750 mm deep (minimum) and 450 mm wide for LT Cables and trenching work shall include all pumping and bailing out water. These trenches shall be wide enough to accommodate all the cables with brick separations as per the requirements specified in the relevant I.S.

When more than one multicore cable is to be laid in the same trench, a minimum horizontal interaxial spacing at least 25/30 cm between cables will be provided as per relevant I.S.

After excavation of the trench of proper size, the bottom of the trench shall be dressed and levelled and filled with a 75 mm layer of find sand. The cables shall then be laid with bricks in the middle of both the cables continuously, filled and packed up to a level of 75 mm (3”) above top of cable with fine sand, the top layer of bricks in the middle of the both cables shall be covered by bricks placed side by side in continuous series as protective cover. Total No. of bricks required being 24 Nos. per meter run. The remainder of the trench shall be filled with excavated soil, well rammed and watered to a level of 75 mm (3”) above surrounding ground level. The ground level surface of the whole trench route shall be restored properly after completion of cable laying.
2.6 The contractor shall have to submit computerised General arrangement circuit diagram of the panels along with fabrication drawing after getting of work order duly approved by the centre.

3 INSTRUCTIONS TO TENDERER

3.1 Tender Documents

Sealed Tenders are invited for the work of “ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNNBCBS, KOLKATA-98” in accordance with the attached Conditions of Contract, Form of Tender and Price Schedules. Tender means Tenderer’s forwarding letter, making his offer against this Tender together with the return of Tender Documents duly filled and signed.

3.2 Earnest Money Deposit (EMD)

No bid will be considered which is not accompanied by a sum of Rs.50000/- (Rupees fifty) thousand as Earnest Money which is lodged on understanding that in the event of the bidder withdrawing the bid before the expiry of 90 days from the last date of submission of the bid, the bid shall be cancelled and the Earnest Money deposited shall be forfeited.

3.2.1 The EMD must be lodged by adopting following steps:

(A) Earnest Money will be accepted only in the form of Crossed Account Payee Banker’s cheque or Demand Draft or Banker’s Pay order from any Nationalised/scheduled Bank payable at Kolkata. EMD in cash will not be accepted.

(B) The EMD shall be submitted as per the procedure laid down in the Tender notice.

(C) Bids if not accompanied by the requisite EMD shall be treated as invalid and shall not be opened. The Earnest Money will be returned to the unsuccessful bidders on their request without interest after the bids are settled. The Earnest Money will be retained in case of successful bidder and will form a part of the Initial Security Deposit.

3.3 Return of Tender Forms

TENDERER MUST RETURN THE COMPLETE TENDER DOCUMENTS INCLUDING FORM OF TENDER WITH CONDITIONS OF CONTRACT, THE SPECIFICATIONS, AND SCHEDULES ETC. DULY SIGNED. ALTERATIONS TO THE CONDITIONS OF CONTRACT, SPECIFICATIONS, ETC. WILL NOT BE ENTERTAINED. ANY TENDER NOT SO SIGNED ON ALL THE DOCUMENTS IS LIABLE TO BE REJECTED.

3.4 Completion period

The time required for completion of the work from the date of award of the contract is 60 days.

3.5 Filling in contract price schedule

Tenderer must fill in the rates against all the items of works included in the schedule of quantities and rates and must extend the same indicating the rate applicable and the amount of taxes, duties, levies etc. and give the total figure.

3.6 acceptance of the tender

The Centre reserves its right to accept or reject any Tender in whole or in part without assigning any reasons thereof.

3.7 Taxes and Duties

Tenderers rates and amounts are to be fully inclusive of all taxes and duties. The Centre can avail excise duty / custom duty exemption against exemption certificate.
3.8 Tender price

Tender price shall be inclusive of all charges for design, manufacture/repair, transport, handling, supply and delivery at site, receipt and storage of all material and equipment at site, installation, trials, testing, commission, maintenance for Defect Liability Period, inspection, supervision and certification at all stages by the nominated inspecting agency, training of the Centre’s staff, supply of spares and special tools, Defect Liability Period and all other incidental charges for the execution of the contract.

3.9 Cost of Stamps

The successful Tenderer shall bear the expenditure towards stamps and related expenditure involved in registering of the contract.

3.10 Mode of Submission of Tender:

Tenders enclosed in a sealed cover as mentioned in the “Tender Notice” indicating on the envelope the Tender No. and due date and time and endorsed “ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98” and addressed to the Acting Registrar, SNBNCBS, will be dropped in the Tender Box kept at the reception area on or before the due date and time of the Tender submission. Outstation Tenders should be dispatched by post so as to reach SNBNCBS before 1400 hours (I.S.T.) on the due date. The Tenderers should specifically note that their offer sent by post or by hand must reach this office on or before the due date and time. OFFERS RECEIVED LATE WILL NOT BE CONSIDERED EVEN THOUGH POSTED IN TIME.

All Tenders shall be submitted in duplicate in sealed covers separately as mentioned below:

(i) The first cover shall contain only EMD in the prescribed manner and shall be sealed and super-scribed with Tender no. and title and EMD as shown below:

```
_____________________________________________________________
"EARNEST MONEY DEPOSIT"

"ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98"
TENDER REF ________________________________
CLOSING DATE ________________ AT ______ HOURS
```

(ii) The second cover shall contain Technical Offer (Part – I) along with all Conditions of Contract, Specification, annexures/schedules, attachments etc, in original and shall be sealed and super-scribed as shown below:

```
_____________________________________________________________
"TECHNICAL BID"

"ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98"
TENDER REF ________________________________
CLOSING DATE ________________ AT ______ HOURS
```
(iii) The third cover shall contain only the Price Offer (Part - II), in duplicate, and shall be sealed, super-scribed as shown below:

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“PRICE OFFER”

“ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98”

TENDER REF ________________________________

CLOSING DATE ___________________AT________HOURS
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(iv) The fourth cover shall contain all the above three covers and shall be super-scribed with Tender No. title and “Complete Offer” as shown below:

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“COMPLETE OFFER”

“ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98”

TENDER NUMBER ________________________________

CLOSING DATE ___________________AT________HOURS
```

If the offers are not received according to the instructions detailed herein, they shall be liable for rejection.

The tender will be opened in the presence of the Tenderers or their representatives who may wish to be present on scheduled date and time of opening the Tenders.

Evaluation of technical offers will be done first on the basis of criteria given in the Schedule of attachments. Price bids of technically qualified bidders only will be opened thereafter.

**SCHEDULE OF ATTACHMENTS (AS PROOF OF TECHNICAL COMPLIANCE)**

**TO BE COMPLETED BY THE TENDERER FOR THE TECHNICAL BID**

<table>
<thead>
<tr>
<th>Item</th>
<th>Title</th>
<th>Attached? (Tenderer to initial)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Technical Submission, to include:**

<table>
<thead>
<tr>
<th>Tenderer Attachment Ref.</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Proof of experience in similar type of work during last three years including value of contract, proof of satisfactory completion of works etc. to be submitted.</td>
</tr>
<tr>
<td>B</td>
<td>Registration with specified organisation like CPWD, WBSEDCL, BSNL, BHEL etc. class/type of registration to be mentioned in the eligibility criteria.</td>
</tr>
<tr>
<td>C</td>
<td>Proof of financial credential: Average annual turnover should not be not less than Rs. 30 lakhs during the last three years. Audited statement for last 3 financial years (2010-2011, 2011-2012, 2012-13) to be submitted.</td>
</tr>
<tr>
<td>D</td>
<td>Proof of valid electrical contractor Licence, trade license, IT PAN, VAT, Service Tax, and Professional Tax Registration</td>
</tr>
</tbody>
</table>
4 CONDITION OF CONTRACT

4.1 Application

Unless otherwise provided for in the Contract Documents, these Conditions shall apply to the work of all sections of the Specifications attached herewith.

4.2 Definitions and Interpretation

Whenever the following words and expressions occur in the Contract Documents, they shall have the meanings herein assigned to them except where the context otherwise requires:

4.3 Owner

The ‘Owner’ means the S N Bose National Centre for Basic Sciences and referred to throughout in the Contract Documents by ‘Owner’ or ‘the Centre’ having its premises at Sector-II, Block-JD, Salt Lake, Kolkata - 700 098. The word ‘Owner’ or ‘the Centre’ when used in conjunction with the words ‘as directed’, ‘where directed’, ‘approved’, ‘subject to approval’, ‘satisfactory’, ‘accepted’, ‘equal to’, ‘proper’, ‘determined by’ shall mean the Acting Registrar of SNBNCBS or any other official nominated by the Owner from time to time.

4.4 Contractor

The ‘Contractor’ is the successful Tenderer who is awarded the Contract by the Owner to perform the Works covered by this Contract and shall be deemed to include the Contractor’s successors, heirs, executors, administrators, representatives or assigns approved by the Owner and will be referred to as if of masculine gender and singular number, throughout in these Documents.

4.5 Sub-Contractor

The term ‘Sub-Contractor’ used herein refers to a party or parties having a direct Contract with the Contractor to whom any part of the contract has been sublet by the Contractor with the consent in writing of the Owner.

4.6 Work

‘Work’ means the work to be executed in accordance with the Contract and includes extra works and temporary works.

4.7 The Contract

‘The Contract’ means and includes the documents listed in Schedule A of the Form of Agreement.

4.8 Contract Price

Contract Price’ means the sum agreed to and named in the Letter of Intent of Contract.

4.9 Drawings

‘Drawing’ means all drawings, calculations and technical information of a like nature provided by the Owner to the Contractor under the Contract and all drawings, calculations and technical information of a like nature submitted by the Contractor and approved by the Owner.
4.10 Site

‘Site’ means the lands and other places, on, under, in or through which the works are to be executed or carried out and any other lands or places provided by the Owner for the purpose of the Contract.

4.11 Month and Week

‘Month’ means English Calendar month; ‘week’ means calendar week.

4.12 Expected Risk

The ‘Excepted Risks’ are riot (in so far as it is uninsurable), war (whether war be declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection or military or usurped power or acts of God such as earthquake, floods, cyclone, hurricane etc., or use or occupation by the Owner of any portion of the Works in respect of which a certificate of completion has been issued (all of which are herein collectively referred to as the ‘Excepted Risks’).

4.13 Commencement Date

‘Commencement Date’ means the date for the commencement of the contract as stated in the Letter of Intent (LOI) or the Letter of Award (LOA).

4.14 Letter of Award

‘Letter of Award’ means a letter issued by the Owner to the successful Tenderer to notify him that he is awarded the contract.

5 Contractor to execute contract Agreement

The Contractor shall after acceptance of Tender/work order enter into and execute a Contract Agreement, on a non-judicial stamp paper of Rs. 100/- (One hundred only) within 15 days of issue of LOI/LOA, to be prepared as per FORM OF AGREEMENT. Until such Contract Agreement is executed the Conditions of Contract, Instruction to Tenderers, Scope of Work & Specifications, Price Schedule, Drawings and the Tender together with their acceptance thereof, shall be the construed as Contract between the Owner and the successful Tenderer. No payment will be made to the Contractor until the Agreement is signed by him. The Contractor shall prepare and finalise the Contract Agreement for signing the formal Contract Agreement. After signing, Contractor shall prepare and submit the full contract documents to Owner duly well bound in both original and copy.

5.1 The cost of the non judicial stamp paper to be borne by the contractor.

5.2 Contractor to satisfy himself in all point

The Tenderer shall inspect and examine the Site and its surroundings and shall satisfy himself or shall be deemed to have satisfied himself before submitting his Tender as to the form and nature of the Site, ground and nature of the work, the means of access to the Site, the means of disposal of debris, the working space he may require, any other local conditions and in general shall himself obtain all necessary information as to risks, contingencies and any other circumstances which may influence or affect his Tender. No extra claim whatsoever shall be entertained on account of misunderstanding or otherwise of the prevailing conditions as well as scope of work.
5.3 Earnest Money and Security Deposit

5.3.1 Earnest Money, the amount of which is specified in the Invitation to Tender, deposited in the ways specified in the Instructions to Tenderer must accompany the Tender without which the Tender will not be considered at all.

5.3.2 Security Deposit shall be deducted from the progressive bills including final bill at ten per cent (10%) of each R.A. Bill/ Final bill value till such time the total deduction together with EMD already taken shall constitute ten percent (10%) of the total contract value.

5.3.3 Security Deposit which shall be converted to Performance Bond after completion of work and shall be refunded after completion of Defect Liability Period without interest and after deduction, if any, made there-from under the provision stated below, on due successful completion of the work.

5.3.4 If the Contractor fails to carry out the work or perform or observe any of the Conditions of Contract, the said Security Deposit may be liable to forfeiture at the option of the Owner. The Owner will also be at liberty to deduct from the Security Deposit or from any sum due or to become due or under any other Contract with the Contractor sums that may become due to the Centre by virtue of any of the terms hereof.

6 Performance Guarantee:

The successful tenderer shall deposit an amount equal to 5 % of tendered and accepted value of the work as performance guarantee in the form of Demand Draft/ Bankers Cheque from a scheduled bank in favour of ‘S N Bose National Centre for Basic Sciences’, payable at Kolkata, which shall be refunded without interest after defect liability period of 01 (one year) from the date of satisfactory completion of work provided the contractor has satisfactorily carried out all work and attended to all defects in accordance with the terms & conditions, specifications and items of the work.

6.1 Forfeiture of Performance Guarantee:
Performance Guarantee is to be forfeited and credited to the Centre in the event of a breach of contract.

7 The Contract and General Obligations of the Contractor

7.1 Applicability of Laws on the Contract

7.2 The Contract documents shall be drawn-up in English language.

7.3 The contract shall be governed by acts as applicable only within the jurisdiction of the Kolkata High Court, India.

7.4 The Contract shall be governed by the following Indian Acts :

   a) The Indian Contract Act, 1872.

   b) The Workmen's Compensation Act, 1923.


   f) Payment of Wages Act, 1936.

   g) The ESI Act, 1948.
h) Child Labour Act 1986

A) Factories Act 1948

B) Employees P.F. & Miscellaneous Provision Act 1952

C) Any other Act as may be applicable under the statutes from time to time.

7.4.1 Unless otherwise stated in the Conditions of Contract:

The Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the execution and completion of the Work and the remedying of any defects; and the Contractor shall indemnify and hold the Owner harmless from and against the consequences of any failure to do so.

7.4.2 Compensation to Workmen and Others

The Contractor shall at all times indemnify the Owner against all claims, damages or compensation under the provision of the Workmen's Compensation Act, 1923, or any other law for the time being in force as consequence of any accident or injury of any workmen, or other person whether in the employment of the Contractor or not, and also against all cost, expenses or charges of any suit, action or proceeding arising out of such accident or injury and against all sums or sums which may with the consent of the Contractor be paid to compromise any such claim suit or proceedings.

7.4.3 Labour Employed by the Contractor on Day Work Basis

7.4.4 Any labour supplied by the Contractor for the work on a day work basis either wholly or partly under the direct orders and control of the Contractor or his Representative, shall be still deemed to be person employed by the Contractor.

7.4.5 The Contractor shall employ no workmen below the age of 16 years on the work in construction of any nature.

7.4.6 The Contractor shall observe all the safety precautions as stipulated and necessary to ensure safety of his staff as well as material. Appropriate Personal Protective Equipment (PPE), and other necessary safety equipment is to be provided to staff while working and the staff are to be properly trained to use such safety equipment and to observe the safety norms.

7.4.7 Discrepancies in Contract Documents

The several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained by the Engineer who shall there upon issue to the Contractor instructions thereon and in such event, unless otherwise provided in the Contract, the priority of the documents forming the Contract shall be as follows:

a) The Contract Agreement.
b) The Letter of Intent.
c) The Conditions of Contract.
d) The Specification
e) The Price Schedule / Bill of Quantities.
f) The Description and Scope of Work
g) The Instructions to Tenderers.
h) The Drawings.
i) The Tender.
j) Any other document forming part of the Contract which is stamped, signed and dated by the competent representatives of the Owner and the Contractors. Except that, where expressly stated, particular documents shall have higher priority.

7.4.8 Subletting by Contractor

The Contractor shall not directly or indirectly transfer, assign or sublet the Contract or any part thereof without the written permission of the Owner. Even if such permission be granted, the Contractor shall remain responsible (a) for the act, defaults and neglect of any Sub-Contractor, his agents, servants or workmen as fully as if these were the acts, defaults or neglects of the Contractor himself or his agents, servants or workmen, and (b) for his full and entire responsibility of the Contract and for active superintendence of the works by him despite being sublet, provided always that the provision of labourers on a "piece rate" basis shall not be deemed to be subletting under this clause. However, all lapses delays due to sub-contractor will be treated as contractual failure solely on Contractor’s part.

7.4.9 Contractor’s Rates to be Fully Inclusive

Unless otherwise specified, the Contractor shall be deemed to have included in this Tender / Offer all his costs for supplying and providing all constructional plant, temporary work, materials both for temporary and permanent works, labour including supervision thereof, transporting to and from the Site and in and about the work, including loading, unloading, fencing, watching, lighting, payment of fees, taxes and duties to the appropriate authorities, Insurance and other things of every kind required of the construction, erection, completion and maintenance of the work including contractor’s overhead and profit.

In case of any statutory or imposition of new taxes and duties after submission of the bid due to notification of Government of India during the contract period and if applicable to the end product, the same may only be considered by Owner against documentary evidence.

7.4.10 Contractor to be Fully Responsible

The Contractor shall be solely responsible for the adequacy, stability and safety of all site operations and methods of construction, even if any prior approval thereto has been taken from the Engineer or his Representative. The Contractor shall be fully responsible for the correct implementation thereof, as also for any design and specification prepared / proposed / used by the Contractor.

7.4.11 Supervision by Contractor

The Contractor shall provide necessary and adequate supervision during the execution of the works and as long thereafter as the Owner or his Representative shall consider necessary during the Defect Liability Period.

The Contractor or his competent and authorised agent or representative shall be constantly at site and instructions given to him by the Owner or his Representative in writing shall be binding upon the Contractor. The Contractor shall inform the Owner in writing about such representative / agent of him at site. Replacement of any of the authorised agent of the Contractor during the currency of Contract shall only be with prior written approval of the Owner.

7.4.12 Contractor to Keep Qualified Personnel at Site

The Contractor shall employ in execution of the Contract only qualified, careful and experienced persons and the Owner shall be at liberty to direct the Contractor to stop deployment of any of his staff, workmen or official at Site and the Contractor shall within 48 hours from the receipt of instruction comply with such instruction without any
demur, Whenever Owner shall feel that the deployment of the person concerned will not be conductive to the proper and timely completion of the work.

The Contractor shall maintain a ‘Site Order Book’ at the work site to keep record of the order/instructions issued by Owner and its compliance by the Contractor and a ‘Hindrance Register’ to record hindrances, if any, duly countersigned by Owner.

7.4.13 Care of the Work

From the commencement of the works till issue of the completion certificate the Contractor shall take full responsibility for the care thereof. Save for the excepted risks, any damage, loss or injury to the work or any part thereof shall be made good by the Contractor at his own cost as per instruction and to the satisfaction of the Owner, failing which the Owner or his Representative may cause the same to be made good by any other agency and the expenses incurred and certified by the Owner, shall be recovered from the Contractor.

7.4.14 Safety

The Contractor shall strictly follow and maintain the safety measures while executing the work at site as per standard safety measures and rules.

7.4.15 Performance Guarantee

The Contractor shall carry out the services in conformity with generally accepted norms and sound standards of engineering and safety. The Contractor shall be responsible for carrying out the works in compliance with the Specifications and Codes. In the event of any deficiency in these works, the Contractor shall promptly rectify the offending works for which the Centre shall not be required to pay any additional compensation.

7.4.16 The Centre’s Rules & Regulations to be followed.

The Contractor and all his agents / employees at the Site or, in and about the work shall be controlled and governed by the rules and regulations of the Centre restricting the conduct of persons within the Campus.

The Contractor shall ensure that all persons employed by him in connection with this project work have understood and shall be under the purview of Indian Official Secret Act 1923 (XIX of 1923).

7.4.17 Accidents

The Contractor shall within 24 hours of the Occurrence of any accident at or about the Site or in connection with the execution of the work, report such accident to the Owner and shall take all steps as is required by the prevailing law.

7.5 Terms of Payment

A) Payment will be made after satisfactory completion of the work.

B) All payments shall be subject to deduction of income-tax at source as per Income Tax Act and Income Tax Rules.
7.6  **Delay/ Extension of Completion Time / Liquidated Damage / Risk Purchase/ Termination of Contract**

A) **Extension of Completion Time**

Should the quantum of additional work of any kind and/or for the reasons of ‘Excepted Risks’ cause delay in completion of the work, the Contractor shall apply to the Owner in writing for suitable extension of completion time within 7 days from the date of occurrence of the reason and the Owner shall thereupon consider the stated reasons in the manner deemed necessary and shall either reject the application or determine and grant the extension period as he would deem proper for completion of the work, with or without the imposition of ‘Liquidated Damage’ on the Contractor. The decision of the Owner shall be binding on the Contract. If an extension of completion time is granted by the owner without imposition of Liquidated Damage, the Liquidated Damage shall apply from the date of expiry of the extended period, if the work is not completed within the extended time.

B) **Liquidated Damage or Other Compensation:**

The Contractor should pay as compensation for delay of work @ 1.5% per month of delay to be computed on per day basis which shall not exceed 10% of the tendered value of the Cost.

7.7  **Risk Purchase.**

Without prejudice to any of his legal rights, the Owner shall have the power to recover the said amount of compensation / damage, from any amount due or likely to become due to the Contractor. The payment or deduction of such compensation / damage shall not relieve the Contract from his obligation to complete the work or from any of his other obligations / liabilities under the Contract and in case of the Contractor’s failure and at the absolute discretion of the Engineer, the work may be ordered to be completed by some other agency or departmentally at the risk and expense of the Contractor, after a minimum 7 days notice in writing has been given to the Contractor by the Owner.

7.8  **Termination of contract**

Without being liable for any compensation to the Contractor, the Owner may, in his absolute discretion, terminate the Contract in part or as a whole after giving him a minimum 7 days notice in writing, due to occurrence of any of the following reasons and decision of the Owner in this respect shall be final, conclusive & binding on the contractor:

a)  The Contractor has abandoned the Contract.

b)  In the opinion of the Owner, either the progress of work is not satisfactory or the work is not likely to be completed within the agreed period on account of Contractor’s lapses.

c)  The Contractor has failed to commence the works or has without any lawful excuse under these conditions, has kept the work suspended for at least 15 days despite receiving the Owner’s written notice to proceed with the work.

d)  The Contractor has failed to remove materials from Site or to dismantle or demolish and replace work for 7 days after receiving from the Owner the written notice stating that the said materials or work where condemned and rejected by him under this conditions.
e) The Contractor is not executing the works in accordance with the Contract or is persistently or flagrantly neglecting to carry out his obligations under the Contract.

f) Any bribe, commission, gift or advantage is given, promised or offered by or on behalf of the Contractor to any officer, servant or representative of the Owner or to any person on his or their behalf in relation to the execution of the Contract.

g) The Contractor is adjudged insolvent or enters into composition with his creditors or being a company goes into liquidation either compulsorily or voluntarily.

7.8.1 In all such cases of Termination of work, the Owner shall have the Power to complete the work through any other agency or departmentally at the Contractor’s risk and expense and the Contractor shall be debited any sum or sums that may be expended in completing the work beyond the amount that would have been due to the Contractor, had he duly completed the whole of the work in accordance with the Contract.

7.8.2 The Owner shall have the power to retain all amounts due to the Contractor until the work is completed by other agency and the Contractor’s liabilities to the Owner are known in all respect. The owner has the right to forfeit performance guarantee.

8. Defect Liability and Refund of Performance Guarantee

8.1 Contractor’s Obligation for Defect Liability

The work including equipment or any component thereof are to be guaranteed for satisfactory performance for the period of twelve (12) Calendar months from the date mentioned in the Completion Certificate to be issued by the Owner, unless otherwise agreed in writing by the OWNER will be deemed as the ‘Defect Liability Period’. Any defect / fault, which may appear in the work during aforesaid guarantee period, arising, in the sole opinion of the Owner, from the defective material and or due to improper design and or due to defective drawing or due to faulty workmanship, or not in accordance with the Contract and shall, upon the written notice of the Owner, be amended and made good by the Contractor at his own cost within seven days of the date of such notice, to the satisfaction of the Owner, failing which the Owner shall have the defects amended and made good through other agency or departmentally at the Contractor’s risk and cost and all expenses, consequent thereon or incidental thereto, shall be recoverable from the Contractor in any manner deemed suitable by the Owner. During the above guarantee period, the contractor shall assume full responsibility for rectifications of any defective equipment or components thereof including all direct expenses relating to removal and repositioning of replacement/repaired equipment or component thereof and subsequent test and trial, incurred thereon without any financial implication to Owner.

8.2 Certificate of Final Completion

The Contract shall not be considered completed and the work shall not be treated as finally accepted by the Owner, until a Final Completion Certificate shall have been signed and issued by the Owner after all obligations under the Contract including that in the Defect Liability Period, if any, have been fulfilled by the Contractor.

8.3 Refund of Performance Guarantee

On completion of the Contract in the manner aforesaid, the Contractor may apply for the refund of his Performance Bond by submitting to the Owner (a) The Receipts granted for the amount of Security held by the Owner, and (b) his ‘No further claim’ Certificates where upon the owner shall issue Certificate and within two months the Owner shall refund without interest the balance due against the
Performance Bond to the Contractor, after making deduction there from in respect of any sum due to the Owner from the Contractor.

9. **Removal of Defective Work**

If the defect or damage cannot be remedied expeditiously on the Site and the Owner gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged.

10. **Right to access**

Until the Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonable required in order to comply with this Clause, except as may be inconsistent with the Owner’s reasonable security restrictions.

11. **Contractor to Search**

The Contractor shall, if required by the Owner, search for the cause of any defect, under the direction of the Owner.

12. **Unfulfilled Obligations**

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

13. **Clearance of site**

14. upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor’s Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.

15. If all these items have not been removed within 15 days after the Owner issues Completion Certificate, the Owner may sell or otherwise dispose of any remaining items. The Owner shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

16. Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Owner’s costs, the Contractor shall pay the outstanding balance to the Owner.

17. **Settlement of Disputes**

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof during the tenure of after expiration/termination of this Contract.

18. Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party’s request for such amicable settlement may be submitted by either Party to arbitration in accordance with the provisions of Clauses 18, 19 and 20 hereinafter.

19. Any dispute pursuant to Clause 16 submitted to arbitration shall be subject to the provisions of the Arbitration and Conciliation Act, 1996 including any modification or amendment thereof for the time being in force shall apply, subject to Arbitration proceedings being held in Kolkata, India.
20. The matter under dispute shall be referred to an arbitral tribunal of three arbitrators, one to be appointed by each Party by designation/name and the third by the arbitrators so appointed.

21. In any arbitration proceeding hereunder, proceedings shall be held in Kolkata, India; the English language shall be the official language for all purposes; the decision of the arbitral tribunal shall be final and binding and shall be enforceable in the court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

22. Cost of arbitration shall be borne equally by both parties.
ANNEXURES TO CONDITIONS OF CONTRACT

ANNEXURE - A

S N BOSE NATIONAL CENTRE FOR BASIC SCIENCES

FORM OF TENDER

ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98

Date _________________

Invitation for Bid No. ____________________

Name of Work ____________________

To,
The Acting Registrar
SNBNCBS

Sir,

1. I/We the undersigned having examined the Tender Documents and the Site of Works as above hereby submit this Tender amounting to the sum as indicated in Envelope-2.

2. I/We agree to keep the Tender open for acceptance for the period of 90 days from the due date of submission of the same and in default agree that the amount of Earnest Money deposited along with the Tender may be forfeited.

3. I/We undertake to complete and deliver the whole of the Works covered under this Tender within a period of 45 days from the Date of Commencement.

4. The Earnest Money as required in Invitation for Bid is being enclosed duly endorsed in favour of S N Bose National Centre for Basic Sciences, the full value of which may be retained by the Centre, in part payment of the Security Deposit as called for and in case this Tender is accepted.

5. I/We also undertake to enter into a Contract with the S N Bose National Centre for Basic Sciences, by executing an Agreement in the prescribed Contract Agreement Form with such additions and alterations there to which may be necessary to give effect to the acceptance of the Tender.

6. I/We hereby agree that until such Contract Agreement is executed, the said Tender Documents together with all correspondence, minutes of meeting, acceptance, etc. thereof in writing by or on behalf of the S N Bose National Centre for Basic Sciences., shall be the Contract.

9. My/our Permanent Income Tax Account No. is ________________________.

Ours is a company with limited liability and a copy of our memorandum and articles of association will be sent for perusal upon acceptance of our order.

Dated.............day of ...... .20…….

Signature of Tenderer

Witness __________________________  Name ___________________________

Name ___________________________ Designation _________________

Address _________________________ Address _________________  

_________________________________  ________________ ___________

Telephone No. _____________________

Fax No. __________________________

S N Bose National Centre For Basic Sciences  Part I
Electrical Power Supply  Page 16  Tender Ref: SNB/ENG/NIT/2013-14/06/019
ANNEXURE – B

FORM OF AGREEMENT

This AGREEMENT made this........................... day of ........................20.. , between S N Bose National Centre for Basic Sciences having its office at Salt Lake, Kolkata – 700098, hereinafter referred to as “THE CENTRE” which expression shall unless excluded by or repugnant to the context be deemed to include all its successors, legal representatives and assigns of the ONE PART and M/s. ______________________________, a Company incorporated under Companies Act, 1956 having its registered office at __________ _______________ hereinafter referred to as “CONTRACTOR” which expression shall unless excluded by or repugnant to the context be deemed to include all its successors, legal representatives and assigns of the OTHER PART.

PREAMBLE

1. In order to execute electrical power supply work at computer centre, the Centre invited Tenders from reputed contractors for carrying out various activities of the work contained more fully in the said Tender vide NIT No.____________________________ dated ___________20……. .

2. The offer submitted by the Contractor vide their letter No. ________ dated ______________ for carrying out the aforesaid work was accepted by the Centre and a Letter of Award vide No. _________________ dated ______________ was issued by the Centre duly entrusting the said Contractor to carry out the said work under the terms and conditions contained in the Tender Documents.

3. In the aforesaid premises, Agreement by and between the parties herein, which would reflect the true intent, and scope of the agreement hereinafter is called the “Contract”.

NOW THEREFORE THIS DEED WITNESSES AS FOLLOWS:

Article 1.0: Award of Contract

1.1 The Centre has awarded the contract to Contractor for the entire scope of work as described in its Letter of Award No. _______________ dated ____________ and also on the terms and conditions contained therein and under these presents. The award has taken effect or shall take effect from .............. The terms and expressions used in this agreement shall have the same meaning as are respectively assigned to them in the Tender/ contract documents referred to in the succeeding articles.

Article 2.0: Contract

2.1 The Contract shall be performed strictly in accordance with the terms and conditions stipulated herein and in the following documents attached herewith (hereinafter referred to as “Contract”)

2.2 The “Contract Documents” shall mean and include the documents described in the Schedule “A” hereto and also such other documents, minutes, correspondences, etc. forming mutual consent over issues relating to this Contract either inadvertently or otherwise not included in Schedule “A” hereto but forming integral part of this agreement.

2.3 The Letter of Award shall mean the Centre’s letter No. _______________ dated ____________ forming integral part of the Contract Documents and this agreement.

2.4 This agreement is subject to the terms and conditions and stipulations embodied in the relevant Tender enquiry, price-bid proposal and the Letter of Award (including any agreed alternations and/ or modification thereof and also other contract documents) and it shall supersede all such premises of the contract documents as are repugnant to each other or amount to unilateral acts, conditions or...
stipulations inconsistent with the Tender enquiry or price-bid proposal (including any agreed variations and/ or modification thereof) made by either of the parties or have not been specifically agreed upon.

**Article 3.0: Scope of Work**

3.1 The Scope of Work under this agreement shall include and/ or cover the scope of work included and/ or embodied in Clause __________ of the Letter of Award No. ___________dated ____________.

3.2 The Scope of Work shall also include all such work which are not specifically mentioned in the contract documents, but which are imperative to achieve completeness in all respects for its safe, reliable, efficient and trouble free working/ operation.

**Article 4.0: Time Schedule**

4.1 The total time frame for completion, commissioning and handing over of the Project shall be ___ months from the date of issue of LOA. The Contractor shall strictly maintain and/ or adhere to the Time Schedule annexed/ incorporated in the Letter of Award No. ___________dated ____________.

**Article 5.0: Contract Price**

5.1 The Total Contract Price for the entire scope of work of this agreement as detailed in the Letter of Award No. ___________dated ____________ is Rs. ______________ (Rupees ______________ in words).

5.2 The aforesaid price and the rates of work shall remain firm and fixed till completion/ commissioning of the project. No escalation in price or rates shall be allowed in any circumstances whatsoever.

**Article 7.0: Settlement of Disputes, Arbitration**

7.1 The provisions of the Arbitration and Conciliation Act, 1996 including any modification or amendment thereof for the time being in force shall apply, subject to Arbitration proceedings being held in Kolkata, India and in accordance with the terms of the contract.

**Article 8.0: General Laws & Jurisdiction**

8.1 The Contract shall be governed by the Indian Laws and Rules as amended from time to time and the principles of laws as applicable in this Contract.

8.2 Generally the Kolkata High Court shall have exclusive jurisdiction in all matters arising under this Contract.

**Article 9.0: Notice of Default**

9.1 Notice of Default given by either party to the other under this Contract shall be in writing and shall be deemed to have been duly and properly served upon the parties thereto if delivered at the addresses given hereinabove against acknowledgement or by registered mail with acknowledgement due.

**SCHEDULE – A**

**CONTRACT DOCUMENTS**

a) The Contract Agreement.

b) The Letter of Intent/ The Letter of Award

c) The Tender Documents including Specification.
d) Any other document forming part of the Contract which is stamped, signed and dated by the competent representatives of the Owner and the Contractors.

In witness whereof the parties have hereinto set their respective hands and Seals in day, month and year first above written.

SIGNED, SEALED AND DELIVERED

FOR __________________________ FOR S N BOSE NATIONAL CENTRE FOR BASIC SCIENCES

Name ...................................................  Name ...................................................
Designation........................................... Designation...........................................
Address................................................ Address................................................
Seal ..................................................... Seal ....................................................

IN PRESENCE OF IN PRESENCE OF

Name ...................................................  Name ...................................................
Designation........................................... Designation...........................................
Address................................................ Address................................................
Seal ..................................................... Seal .....................................................
## ELECTRICAL POWER SUPPLY WORK AT COMPUTER CENTRE OF SNBNCBS, KOLKATA-98

### PRICE SCHEDULE

<table>
<thead>
<tr>
<th>SL. NO</th>
<th>DESCRIPTION OF ITEMS</th>
<th>UNIT</th>
<th>QTY.</th>
<th>RATE Rs.</th>
<th>AMOUNT Rs.</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Supply and laying of PILC/PVC insulated and PVC sheathed/XLPE power cable of grade exceeding 1.1 KV but not exceeding 11 KV approved cable conforming to IS 1554 (Part-I) of following sizes.</td>
<td>Mtr.</td>
<td>650</td>
<td>Havell’s/ Poly Cab Make</td>
<td></td>
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<tr>
<td>a)</td>
<td>3.5C, 300 sq.mm. PVC/Al Ar XLPE cable.</td>
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<tr>
<td>2.</td>
<td>Supplying and making end termination with double brass compression gland and aluminium lugs for 300 sq.mm. of PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade as required.</td>
<td>Sets</td>
<td>4</td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>Supply and fixing of 100 mm dia G.I. pipe for protection of the said cable along the Vertical length.</td>
<td>Mtr.</td>
<td>40</td>
<td>Tata Medium</td>
<td></td>
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<tr>
<td>4.</td>
<td>Supply, Installation and Testing-Commissioning of indoor type/wall mounted sheet steel (14 SWG) enclosed cubicle type Panel Board shall be fabricated from CRCA sheet steel having suitably rated Copper Bus bars, dust and vermin proof suitable for 415 Volt, 3 Phase, 50 Hz A.C. supply. The panel board shall be painted with powder coated and light gray shade and there should be a ventilation provision in the panel, fixed on a M.S. Panel Base including fixing of all MCB neutral. Inside wiring with copper cable all out going and incoming stud type terminals and shall consist of the following:- 1.400 Amp. 4 Pole MCCB for incoming – 1 No. (breaking capacity 50 ka) 2. 125 Amp. 4 Pole MCCB for outgoing – 6 Nos. (breaking capacity 50 ka)</td>
<td>SET</td>
<td>2</td>
<td>MCCB L&amp;T/ Schneider/ Hager Make</td>
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<td>3.</td>
<td>250 Amp. 4 Pole MCCB for outgoing – 1 No. (breaking capacity 50 ka)</td>
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<tr>
<td>4.</td>
<td>63 Amp. 4 Pole MCCB for outgoing – 3 Nos. (breaking capacity 36 ka)</td>
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<td>5.</td>
<td>1 No. 0-500 Volt Digital Voltmeter with selector switch.</td>
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<tr>
<td>6.</td>
<td>1 No. 0-400 Amp. Digital Ammeter with selector switch.</td>
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<td>7.</td>
<td>3 Nos. 400/5 current transformers for metering (Cappa make, Class – 1)</td>
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<td>8.</td>
<td>3 Nos. indicating lamps for Mains ON (for three phases)</td>
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<tr>
<td>9.</td>
<td>1 Set 400 Amp. Copper Bus bars</td>
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<td></td>
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<tr>
<td>10.</td>
<td>Approximate size of panel 1400mmX750mmx2000mm with 630 AMP. TPN Copper Busbar.</td>
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</tbody>
</table>

**5. Supply, Installation and Testing-Commissioning of indoor type/wall mounted sheet steel (14 SWG) enclosed compartment alised cubicle type ATS Panel Board shall be fabricated from CRCA sheet steel having suitably rated Copper Bus bars, dust and vermin proof suitable for 415 Volt, 3 Phase, 50 Hz A.C. supply. The panel board shall be painted with powder coated and light gray shade and there should be a ventilation provision in the panel, fixed on a M.S. Panel Base including fixing of all MCB neutral, Inside wiring with copper cable all out going and incoming stud type terminals including auto & manual indication and shall consist of the following:-

1. 400 Amp. 4 Pole MCCB for incoming – 4 Nos. (breaking capacity 50 ka)
2. 400 Amp. 4 Pole ACOS – 02 Nos. (Schneider, Havell’s, HPL SOCOMECH make, model No. ATYS 3S with C30)
3. 1 No. 0-500 Volt Digital Voltmeter with selector switch.
4. 1 No. 0-400 Amp. Digital Ammeter with selector switch.
5. 3 Nos. 400/5 current transformers for metering (Cappa make, Class – 1)
6. 3 Nos. indicating lamps for Mains ON (for three phases)
7. 1 Set 400 Amp. Copper Bus bars
8. Approximate size of panel 1800mmX450mmx1500mm with 400 AMP. TPN Copper Busbar.**

<table>
<thead>
<tr>
<th>SET</th>
<th>1</th>
<th>MCCB L&amp;T/ Schneider/ Hager Make</th>
</tr>
</thead>
<tbody>
<tr>
<td>SET</td>
<td>1</td>
<td>SET</td>
</tr>
</tbody>
</table>

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6. Supply and erection of 600mmX600mmX6mm G.I. earth plate as per IS-3043, 1987. No. 04

7. Supply, Laying and fixing of 25mmX6mm G.I. earth strip partly underground and partly surface by necessary clamps etc. for earthing. Mtr. 100.0

8. Supply and fixing of 3 mtr. Long 50mm dia 3.64mm thick G.I. pipe including fixing of reducer at top of the pipe for watering purpose. No. 04

9. Supply and fixing of 25mmX6mm PVC sleeve. Mtr. 120.0

10. Supply and poring of char coal. Kg. 200.0

11. Supply and poring of Salt. Kg. 200.0

12. Supply and fixing of 450mmX450mm C.I. earth pit cover with hinged door, Bituminous Paint. No. 04

13. Drilling, Welding and fixing of G.I. earth strip with G.I. earth plate and also with existing earth grid by G.I. Nuts, Bolts and washers etc. complete. Set 04

14. Supply and making of Earth pit masonry enclosure on top of the earth pipe over all size of 550mmX550mmX460mm, Deep below GL and completed with Cement brick work (1:6) with 125mm width duly plastered with cement mortar and digging of well 5 mtr. Depth, 600mm Dia by using ring of burnt clay for placement of G.I. earth plate below G.L. etc all complete. Job. 04

15. Supply and fixing of 15 KVAR Ultra Heavy duty Capacitor. No. 10 Siemens/LT make

16. Supply and fixing of 32 Amp. 3 pole M.C.B. No. 10 Siemens/LT Legrand make

17. Supply and fixing of capacitor duty contactor of type MPX-15 for 15 KVAR. No. 10 Siemens/LT make

18. Supply and fixing of Push button switch. No. 20

19. Supply and fixing of LED Indicator. No. 20

20. Supply and fixing of 0-650 V, 3 Ph Digital Volt Meter with selector switch. No. 01 AE Make

21. Supply and fixing of 0-630 AMP, 3 Ph Digital Ampere meter with selector switch. No. 01 AE Make
<table>
<thead>
<tr>
<th>No.</th>
<th>Item Description</th>
<th>Quantity</th>
<th>Supplier/Make</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Supply and fixing of 14 steps APFC Relay unit which should measure and display of V, I, KVA, KW, KVAR, PF, Current sensitivity 10 mA, type RPM-14.</td>
<td>No. 01</td>
<td>L&amp;T/Hager/Schneider/Make)</td>
</tr>
<tr>
<td>23</td>
<td>Supply and fixing of M.S. base frame for APFC panel made from 75mmX50mmX6mm M.S. Channel including necessary brick wall, trench cutting etc. all complete.</td>
<td>Job. 01</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Final Erection, Testing &amp; Commissioning work.</td>
<td>Job. 01</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Supply and fixing of 150 mm sweep Exhaust Fan.</td>
<td>Nos. 02</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Supply and fixing of Timer unit.</td>
<td>No. 01</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Supply and fixing of Auxiliary Contactor.</td>
<td>No. 01</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Supply and fixing of auxiliary contactor element.</td>
<td>Nos. 10</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Supply and fixing of 6 Amp. DP MCB.</td>
<td>Nos. 02</td>
<td>Legrand/AB B/semiens/</td>
</tr>
<tr>
<td>30</td>
<td>Supply and laying of 1100 Volt grade, 3.5 Core 185.0 sq. mm. XLPE, PVC, AL Armoured cable.</td>
<td>Mtr. 60.0</td>
<td>Havell,s/Polycab</td>
</tr>
<tr>
<td>31</td>
<td>Supply and fixing of 185 sq.mm. Cable Gland.</td>
<td>No. 04</td>
<td>Dowells make</td>
</tr>
<tr>
<td>32</td>
<td>Supply and fixing of 185 sq.mm. flat socket.</td>
<td>No. 12</td>
<td>Do</td>
</tr>
<tr>
<td>33</td>
<td>Supply and fixing of 95 sq.mm. flat socket.</td>
<td>No. 04</td>
<td>Do</td>
</tr>
<tr>
<td>34</td>
<td>Supply and fixing of ADD ON BLOCK for 15 KVAR Capacitor duty contactor.</td>
<td>No. 10</td>
<td>L&amp;T/Hager/Schneider/Make)</td>
</tr>
<tr>
<td>35</td>
<td>Supply and fixing of 400 Amp. 4 pole MCCB of type DN3-400N, breaking capacity 50 ka, Cat No. CM930040OOOOG, with auxiliary contact including extended rotary handle and spreader terminals.</td>
<td>No. 01</td>
<td>DO</td>
</tr>
<tr>
<td>36</td>
<td>Supply and fixing of Current Transformer (CT) of ratio 400/5A, 15VA, CL-1, Tape wound.</td>
<td>No. 03</td>
<td>Kappa make</td>
</tr>
<tr>
<td>37</td>
<td>Supply and fixing of Current Transformer (CT) of ratio 400/1A, 20VA, CL-1, Tape wound.</td>
<td>No. 01</td>
<td>Kappa make</td>
</tr>
<tr>
<td>38</td>
<td>Supply and fixing of phase indicator lamp</td>
<td>No. 03</td>
<td>LT Make</td>
</tr>
<tr>
<td>39</td>
<td>MCCB ON/OFF indicator Lamp</td>
<td>Set. 01</td>
<td>LT Make</td>
</tr>
<tr>
<td>No.</td>
<td>Description</td>
<td>Quantity</td>
<td>Unit</td>
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<td>-----</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
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<td>------</td>
</tr>
<tr>
<td>40</td>
<td>Supply and fixing of 4 Pole 6 Amp. MCB.</td>
<td>01</td>
<td>LT Make</td>
</tr>
<tr>
<td>41</td>
<td>Supply and laying through PVC conduit of 4 core 4.00 sq.mm. Control cable with end termination.</td>
<td>300.0</td>
<td>Mtr.</td>
</tr>
</tbody>
</table>
| 42  | Supply, Installation of back and front operated cubical type free standing APFC Panel suitable for operation of 150 KVAR, 415 Volt, 3 Phase, 50 Hz A.C. supply system and to withstand a short circuit level of 35 KA symmetrical. The panel shall be fabricated out of 14 SWG CRCA sheet steel with necessary anti corrosive treatment and shall be dust and vermin proof construction suitable for installation on pedestal with following facilities.  
A) Fire and corrosion resistant coating applied two coats with necessary primer.  
B) Fire retardant DMC/SMC fillings for openings around busbar near the sanctional barriers.  
C) Facilities in the terminals to have direct termination with ALU cables.  
D) Shall have high mechanical dielectric strength.  
E) Door interlocking facility and fire barriers.  
F) Painting of APFC Panel and base frame shall be carried out through seven tank process after surface treatment and shall be painted through powder coating process with two coats of zinc chromate primer and two coats siemens gray painting.  
G) Approximate size of panel 2000mmX1200mmx600mm with 600 AMP. TPN Aluminum Busbar.  

N.B. All the Panel Boxes should be complete with all internal wiring and with arrangement for receiving incoming and outgoing terminals.                                                                                     | 01       | Set   | LT Make |                            |
<p>| 43  | Supply and fixing of 400 Amp. 4 pole MCCB of type DN3-400N, breaking capacity 50 ka, Cat No. CM93004O0000, with auxiliary contact including Enclosure, extended rotary handle and spreader terminals etc. all complete. | 01       | LT Make |                            |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>44.</td>
<td>Supply and laying of 1100 Volt grade, 1 Core 35 sq. mm. pvc insulated copper flexible cable.</td>
<td>Mtr. 100</td>
<td>Havell,s/ finolex/ Polycab</td>
</tr>
<tr>
<td>45.</td>
<td>Supply and laying of 35 sq.mm. PVC Conduit.</td>
<td>No. 16</td>
<td>Dowells make</td>
</tr>
<tr>
<td>46.</td>
<td>Supply and fixing of 35 sq.mm copper flat socket.</td>
<td>No. 42</td>
<td>Do</td>
</tr>
<tr>
<td>47.</td>
<td>Supply and fixing of 120 sq.mm. Copper flat socket.</td>
<td>No. 24</td>
<td>Do</td>
</tr>
<tr>
<td>48.</td>
<td>Supply and laying of 8 SWG G.I. wire</td>
<td>Mtr. 100</td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>Pvc Flexible pipe with cabling 35 mm</td>
<td>Mtr. 35</td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>Supply and laying of 1100 Volt grade, 1 Core 16 sq. mm. pvc insulated copper flexible cable.</td>
<td>Mtr. 35</td>
<td>Havell,s/ finolex/ Polycab</td>
</tr>
<tr>
<td>51.</td>
<td>Supply and fixing of 250 Amp. 4 pole MCCB of type DN2-250D breaking capacity 36 ka, Cat No. CM932109O0PIOG, including Enclosure, extended rotary handle and spreader terminals etc. all complete.</td>
<td>No. 02</td>
<td>LT make</td>
</tr>
<tr>
<td>52.</td>
<td>Supply and laying of 1100 Volt grade, 1 Core 120 sq. mm. pvc insulated copper flexible cable.</td>
<td>Mtr. 72</td>
<td>Havell,s/ finolex/ Polycab</td>
</tr>
<tr>
<td>53.</td>
<td>Pvc Flexible pipe with cabling 50 mm</td>
<td>Mtr. 35</td>
<td></td>
</tr>
<tr>
<td>54.</td>
<td>Supply and fixing of 16 sq.mm. copper flat socket.</td>
<td>No. 7</td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>Supply and fixing of 440 Volt grade, 400Amps copper Busbar (3 Phase &amp; neutral)</td>
<td>No. 1</td>
<td></td>
</tr>
</tbody>
</table>

**Total**

**In words:**

Signature of Tenderer

Date: ________________________________

Name: __________________________________

Place: __________________________________

Address: __________________________________

Company seal