



Projects & Development India Limited

(A Govt. of India Undertaking)

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CIN:U74140UP1978GO1028629

INVITATION TO BID

To :

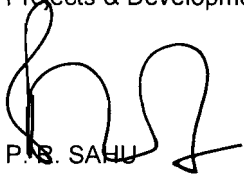
Open Vendor

ITB Number	11/PNMM/E/4903/2017-18/100930
Type of Bid	Two Stage <i>Part</i>
Type of Opening	Public Opening
Date of Issue	24.07.2017
Bid Closing Date	08-08-2017 Time 10:00:00 AM
Tech. Bid Opening Date	09-08-2017 Time : 11:00:00 AM
Price Bid Opening Date & Time	Shall be intimated later
Venue of Bid Opening	PDIL,Noida
Earnest money Deposit	88,000/-
Tenure/Periodicity of Contract	2 Years

Projects & Development India Limited (PDIL) is a Govt. of India Undertaking under the administrative control of the Dept. of Fertilizers, Ministry of Chemicals and Fertilizers. PDIL invites bid as per under mentioned job subject to terms and conditions enclosed.

SL. No.	Material/HSN Code/ SAC Code	Description	Quantity	Unit
10		Operation and Maintenance of Electrical Equipments	1	LOT

For & on behalf of
Projects & Development India Ltd.


P.S. SAHU

Addl. General Manager & HOD (MM)

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Sub: Pre-Qualification Criteria (PQC) for Contract for Operation and Maintenance of electrical power distribution system including DG sets and other electrical equipment installed in PDIL Bhawan, Noida

1. The bidder must have average annual turnover of Rs. 20.96 Lakh during the previous 3 financial years ending 31.03.2017. Bidder shall submit audited / charter certified balance sheets and profit / loss statement in support of this criterion.
2. The bidder must have experience of having successfully completed similar works as specified in the ITB (i.e. maintenance and operation of electrical installations and operation of DG Sets in Govt./ Semi-Govt./ Private Sector offices) during past 7 years ending last day of the month previous to the one in which applications/ bids are invited with minimum work order value(s) as indicated below:
 - i. Three similar completed works, each cost not less than Rs. 13.97 Lakh.
OR
 - ii. Two similar completed works, each cost not less than Rs. 17.47 Lakh.
OR
 - iii. One similar completed work costing not less than Rs. 27.95 Lakh.
In support of this criterion, the bidder shall submit copies of Work Order(s) & Completion Certificates of the work(s) executed.
3. The bidder should have valid Class-A Electrical Contractor License.
4. The bidder must submit self declaration that the bidder is neither put on Holiday nor Blacklisted by any Government / PSU / Private Firm or Financial Institution as per enclosed performa (Annexure-XIV)

Bidders are to submit all relevant supporting documents (self attested photocopy) to qualify against the above criteria.

INSTRUCTION TO BIDDERS

- 1.0 A bidder who meets the Pre-Qualification Criteria (PQC) as per ITB and intends to quote against this ITB may download the bidding document from PDIL website <http://pdilin.com> OR Central Public Procurement Portal <https://eprocure.gov.in/cppp> and submit the Bid complete in all respect as per terms & conditions of contract on or before the bid closing date and time.
- 2.0 **Submission of Bids:** Bids shall be submitted as detailed below:
- 2.1 Bidders to submit the bids online through the Central Public Procurement Portal for e-Procurement at <https://eprocure.gov.in/eprocure/app>)
- 1) Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-procurement / e-tender portal is a prerequisite for e-tendering.
 - 2) Bidder should do the enrollment in the e-procurement site using the “Click here to Enroll” option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide the correct/true information including valid email_id. All the correspondence shall be made directly with the contractors/bidders through email_id provided.
 - 3) Bidder need to login to the site thro’ their user ID/ password chosen during enrollment/registration.
 - 4) Then the Digital Signature Certificate (Class II or class III Certificates with signing key usage) issued by SIFY / TCS / nCode / eMudra or any Certifying Authority recognized by CCA India on eToken / SmartCard, should be registered.
 - 5) The DSC that is registered only should be used by the bidder and should ensure safety of the same.
 - 6) Contractor/Bidder may go through the ITB / tenders published on the site and download the required ITB documents/schedules for the tenders he/she is interested.
 - 7) After downloading / getting the ITB / Tender document/schedules, the Bidder should go thro’ them carefully and then submit the documents as asked, otherwise bid will be rejected.
 - 8) If there are any clarifications, this may be obtained online thro’ the tender site, or thro’ the contact details. Bidder should take into account the corrigendum published before submitting the bids online.
 - 9) Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the eToken / SmartCard to access DSC.
 - 10) Bidder selects the tender which he/she is interested in by using the search option & then moves it to the ‘my tenders’ folder.
 - 11) From my tender folder, he / she selects the tender to view all the details indicated.
 - 12) It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the bid will be rejected.

- 13) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/xls/rar/zip/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, permitted. Bidder Bid documents may be scanned with 100 dpi with black and white option. However of the file size is less than 1 MB the transaction uploading time will be very fast.
- 14) If there are any clarifications, this may be obtained through the sits, or during the pre-bid meeting if any. Bidder should take into account the corrigendum published from time to time before submitting the online bids.
- 15) The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. this will facilitate the bid submission process faster by reducing upload time of bids.
- 16) Bidder should submit the Tender Fee/ EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission due date & time for the tender. Scanned copy of the instrument should be uploaded as part of the offer.
- 17) While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- 18) The bidder has to select the payment option as offline to pay the Tender FEE / EMD as applicable and enter details of the instruments.
- 19) The details of the DD / any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.
- 20) The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
- 21) The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid will be rejected.
- 22) If the price bid format is provided in a spread sheet file like BoQ_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. the Price Bid / BOQ template must not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.
- 23) The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). the TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- 24) After the bid submission (i.e after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number, given by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.

- 25) The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. the bidders should follow this time during bid submission.
- 26) All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during id submission & not be viewable by any one until the time of bid opening.
- 27) Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 28) The confidentiality of the bids is maintained since the secured Socket Layer 128 confidentiality technology is used. Date storage encryption of sensitive fields is done.
- 29) The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 30) For any queries regarding e-tendering process, the bidders are requested to contact as provided in the tender document. Parallel for any further queries, the bidders are asked to contact over phone: 1-800-233-7315 or send a mail over to cphp-nic@nic.in.

2.2 Bidders are required to submit their bids under three envelopes as detailed below:

Envelope (A)

a) Earnest Money Deposit (EMD) as per Cl. 6.0 below.

OR

A copy of valid Registration Certificate, in case of NSIC/MSE registered Companies.

b) Annexure- XI Format of Details of payment, all the details duly filled in.

Envelope-B: Un-priced Technical and Commercial Bid which comprises the following documents:

a) Documents in support of 'Pre-Qualification Criteria" as per Annexure-I, attached.

b) Complete ITB documents duly signed & stamped in each page with "Deviations"/"Exception" sheet (if any) and all Annexure duly filled in.

c) **Price Confirmation Copy** - A copy of Priced offer of schedule of Rates (Annexure-XII), keeping price blank (hiding the price) and in place indicating "Quoted" or "√", as a confirmation of price quoted against the enquired item and all applicable Taxes & Duties, shall be submitted

d) Copy of Check List as Annexure-XIII enclosed, duly filled by the bidder making all the points clear and not leaving any voids.

e) Photo copy of PAN card.

f) A Copy of valid Service Tax registration certificate

g) Any other document as per the requirement specified in the ITB

Envelope-C: Price Bid

Price Schedule (schedule of Rates) as per Annexure-XII with quoted rates in Rs. and Taxes & Duties, as applicable, signed and stamped.

3.0 **Opening of Bids**

Bid opening will be Public. Envelope A and B only will be opened on Technical Bid Opening Date. Price Bids (Envelope C) of only those bidders will be opened which will be considered technically and commercially acceptable.

4.0 **Evaluation of Bids**

Bids shall be evaluated for Pre-Qualification Criteria (PQC) first and Techno-Commercial Bid Evaluation shall be carried out, only for those Bids which shall meet the Pre-Qualification Criteria (PQC).

Bids shall be scrutinized on Techno-Commercial parameters. Bids having unacceptable deviation may be rejected at this stage. However, clarifications shall be sought from bidder for any shortcoming found in their Bid at this stage.

The PRICE BID shall be opened only of those bidders who will be technically and commercially suitable.

5.0 **Price Evaluation Criteria**

Priced evaluation of bids shall be done on the basis of rates quoted in PART - A, B & C of "Schedule of Rates". Quantities indicated in PART-B and PART-C are indicative and for evaluation purpose only. This may vary widely and the payment against items of PART-B and PART-C shall be based upon actual quantities executed.

Contract shall be awarded to the overall lowest bidder on the basis of rates quoted against sr. no. 4.0 of "Summary of Prices" of "Schedule of Rates", considering the Input Tax Credit benefit to PDIL.

In case of any discrepancy, unit rate shall prevail for calculation to arrive at the total price.

In case a bidder does not fill up any amount and leaves it blank or writing 'N/A' or put '-' against any item of Price Schedule, it shall be deemed that cost of such item (s) is included in other item by the bidder elsewhere in the quoted price.

Incomplete Price Schedule may result into rejection of bid.

6.0 **Earnest Money Deposit (EMD)**

Earnest money deposit shall be submitted by way of Demand Draft/ Banker's Cheque only drawn on any Scheduled/ Nationalized Bank in favour of 'Projects & Development India Ltd', Noida. **Quotation/Bid without EMD may not be considered.** However, NSIC/MSE registered Companies are exempted from submission of EMD provided a valid Certificate in this regard is submitted.

6.1 EMD shall be refunded:

- To the unsuccessful bidders after acceptance of order by the successful bidder(s).
- To the successful bidder(s) after deposition of Security money/ confirmation by the Bank of the Security cum Performance Guarantee submitted by bidder

No interest shall be payable on EMD.

6.2 EMD may be forfeited without prejudice to any other right or remedy of PDIL including but not limited to following circumstances:

- a) If a bidder withdraws his bid during the period of bid validity specified by the bidder
- OR
- b) In the case of successful bidder, if the bidder fails to accept the order

OR

- c) If a bidder is found to have furnished mis-representation or wrongful declaration/ presentation of qualifying data and other facts in their Bid.]

7.0 **Validity of Bids**

Prices quoted should remain valid for our acceptance for a minimum period of 90 days from the date of opening of technical bids. PDIL will not allow any revision in prices within validity period after sealed tender are opened.

- 8.0 If at any later date, it is found that documents, information and data submitted by the Bidder in the Bid, and based on which the Bidder has been considered eligible or successful or has been awarded the Contract is incorrect or false to the extent that had the correct or true information been made available to the OWNER at the time of Bid evaluation, the bid would have been declared ineligible or unsuccessful, the Bidder shall be forthwith disqualified or, as the case may be, the contract awarded based on such incorrect or false information shall be cancelled and the EMD/PBG/Security Deposit shall be liable to be forfeited.
- 9.0 Bidders are required to carefully go through the entire scope of ENQUIRY, terms and conditions, and other requirements before quoting. They should feel free to contact PDIL before submission of bid if they have any query on it. Once the bid is submitted, PDIL will presume that the bidder has understood thoroughly the Scope of Supply along with terms & conditions and all these are acceptable to them.
- 10.0 Bids shall be typed or written in indelible ink and must be free from corrections / erasing / overwriting etc. Any changes made must be authenticated with initial by the Bidder.
- 11.0 Bid shall be ideally in conformity to the Scope of supply/work along with all Terms & conditions, stipulated in the ENQUIRY. PDIL shall appreciate to receive a Bid having no deviation. However, under unavoidable circumstance, a Bidder may submit Deviations in a separate sheet, which PDIL at its own liberty may accept or reject. Deviations found elsewhere inside the Bid document shall not be considered. Deviations including condition(s), if any, found in the Price bid shall liable for rejection of a Bid in totality.
- 12.0 PDIL reserves the right to reject any or all the bids without assigning any reason whatsoever and does not bind itself to accept the lowest or any other bid. All bids in which any of the prescribed conditions are to be fulfilled or are incomplete in any respect are liable to be rejected. PDIL is at liberty to take any of the following actions in case of this ITB:
- a) to cancel the tender without reference to the bidders.
 - b) to postpone the due date and time.
- 13.0 Bidders shall not be entitled to claim any costs, charges, expenses or incidentals for or in connection with the preparation and submission of their bids even though Project & development of India Limited may withdraw the enquiry/tender or reject all bids.
- 14.0 **SITE VISIT:** If needed, Bidder can visit site (PDIL) before quoting their rates. For site visit and any clarifications please contact to:

HOD (Electrical)
Projects & Development India Limited
A-14, Sector-1, Gautam Budh Nagar
Noida – 201 301 (UP),
Phone:0120-2529878, FAX: 0120-2529801
e-mail : shalini@pdilin.com / rkvarshney@pdilin.com

- 15.0 Bids submitted thro' FAX and e-mail will not be accepted. No request from any bidder to PDIL to collect the bid from airlines, cargo agents etc. shall be entertained by PDIL.

- 16.0 PDIL reserve the rights to assess bidder's capability and capacity to perform the contract
- 17.0 Bids must be submitted on or before the closing date and time well in advance. Bids received late are liable for rejection & no complaint shall be entertained in this regard for any reason whatsoever.
- 18.0 To know more about PDIL, please visit our website <http://www.pdilin.com>

GENERAL CONDITIONS OF CONTRACT (GCC)**1.0 Scope of Contract**

The Scope of Contract, shall be as per 'Technical Scope' and 'Schedule of Rates', attached to the ITB, unless & otherwise it is modified, at subsequent stage of bidding.

2.0 Price Basis

Duly executed at PDIL BHAWAN, NOIDA.

3.0 Taxes and duties

Goods & Service Tax (GST): GST shall be paid EXTRA as applicable as per GST law. Bidder shall clearly indicate the present applicable rate of GST in Percentage (%) along with corresponding HSN / SAC Code and enclose a copy of GST registration certificate along with the un-priced offer.

PDIL shall avail Input Credit against payment of GST. Same will also be considered while evaluating the price bid. Relevant necessary documents shall be provided by the Contractor to enable PDIL avail the above credit set up.

Bidders have to ensure that they should file the Tax return on time to avail input Tax credit, else the same shall be deducted from EMD/Security Deposit/Running Bills.

Statutory variation in taxes & duties including imposition of any new taxes & duties by the statutory authorities during contractual period, the same shall be paid at actual at the prevailing rate only, on production of documentary evidence, *except in case of PART-C of "Schedule of Rates"*.

The rates quoted in PART-C of "Schedule of Rates" shall be inclusive of all taxes & duties and shall be firm during the entire contractual period irrespective of any variation in the rate of taxes & duties including inclusion of any new taxes & duties . However, the contractor shall be required to indicate the applicable taxes, duties etc. separately while invoicing to PDIL.

In case of delay in execution, if there is any increase in the rate of tax & duty and/or there is imposition of any new tax/ duty by statutory authorities, PDIL shall restrict the payment of taxes & duties, as prevalent on the scheduled delivery/ completion period only, as mentioned in the Contract and amendment(s) there to.

If there is any decrease in applicable rate of taxes & duties &/or there is any withdrawal of any tax & duty by statutory authorities, during the completion period including extended/amended period of P.O, shall accrue to PDIL's a/c.

PDIL shall not issue any form other than Form-38 i.e. Road Permit, if required, on written request by the Contractor.

4.0 Effective date of Contract/ P.O. : Shall be the date of issuance of LOI/ P.O.**5.0 Security Deposit****5.1** Security Deposit for an amount equivalent to 10% of order value (annual order value). shall be submitted within 15 days of issuance of P.O, in the form of Demand Draft (DD)/ Banker's Cheque / Bank Guarantee (BG). The same shall be valid to cover completion period.

In case of submission of BG, BG shall be valid to cover completion period plus three (03) months claim period thereafter. BG shall be issued by any Scheduled Commercial Bank. Format of BG is enclosed herewith at Annexure-XV.

In the absence of submission of Security Deposit, the equivalent amount after adjustment of EMD amt., if any, shall be adjusted from the bills.

- 5.2 No interest shall be payable on Security Deposit.
- 5.3 PDIL Noida, however, reserves the right to encash/ forfeit the Security Deposit, if the Contractor fails to execute the Contract and/or abide by all the terms and conditions of the Order / Contract.
- 5.4 Security deposit shall be refunded after 30 days of completion of Contract on the certification of Engineer In Charge for due fulfillment of the contractual obligations and after adjusting the expenditure incurred by the Owner, if any, on account of any failure on the part of the contractor.

6.0 Insurance

Necessary insurance(s) to cover accident risk for his employees loss of life, material etc. to crew or the third party to be arranged by Contractor at his cost.

7.0 Termination

In the event of unsatisfactory performance, PDIL reserves right to cancel part or whole of the order / contract and make alternate arrangement at any time during currency of contract on risk & costs of contractor and / or forfeit security deposit.

8.0 Force Majeure

The act of God, epidemic, wars, revolution, and official strike shall be treated as force majeure condition. In event of occurrence of such condition neither party shall be responsible for delay in performance provided that it is notified within 07 days of its occurrence. The Contractor shall provide justification by documentation countersigned by the local chamber of commerce.

9.0 Arbitration

All cases of dispute arising during execution of contract shall be resolved by mutual discussion of parties operating the Contract. In the event of failure to do so, matter will be settled as per Arbitration and Conciliation Act, 1996, as amended from time to time.

However, wherever applicable, in case of settlement of commercial disputes between PSEs inter SE and PSE(s) and Government Department(s), the same shall be settled through Permanent Machinery of Arbitrators (PMA) setup in the Department of Public Enterprises(DPEs) as per the following Clause:

“In the event of any dispute or difference relating to the Interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator”.

The performance under this contract, shall not stop for any reason, whatsoever, during the said dispute / proceedings, unless the service provider is specifically directed by PDIL to desist from working in this behalf.

10.0 Jurisdiction

The P.O shall be deemed to have been entered into at Noida/Vadodara/Sindri, for PDIL's different Unit, as the case may be and all cases of action in relation to the P.O shall, therefore, be deemed to have been assigned within its jurisdiction for respective Unit/location.

SPECIAL CONDITIONS OF CONTRACT (SCC)

- 1.0 **PRICE:** Price shall be firm and subject to no escalation till execution of contract and its subsequent amendments except in case of revision of wages of the personnel deployed by the contractor. The Minimum Wages will be as per the Notification of Minimum Wages of Government of India, Ministry of Labour & Employment from time to time and payment shall be made accordingly against documentary evidence. Further, for any variation in the rates of EPF, ESIC and bonus, as affected by respective authorities, the payment shall be made according to the revised rates against documentary evidence.
- 2.0 **PAYMENT TERMS:** Payments against the following heads shall be released within 30 days of receipt of invoice, duly supported with all necessary documents which shall be certified by HOD (Electrical) or his/ her authorized representative of Electrical Department:
- 2.1 Monthly wages of personnel deployed and contractor's service charges payments
 - 2.2 For supply of Additional manpower payments, if any
 - 2.3 Payment for supply and repair jobs, if any
- 3.0 The payment to the personnel shall be made by the contractor by Account Payee Cheque in presence of HOD (Electrical) or his/ her authorized representative of Electrical Department. For this purpose, the Contractor must inform in advance about the exact date and time of making payment of their staff.
- 4.0 **PROCEDURE FOR SUBMITTING BILLS**
- 4.1 Monthly Bill with minimum following supporting documents shall be submitted by Contractor to Electrical Department :
- a. Monthly Attendance Sheet of contractor's personnel deployed at PDIL Bhawan, Noida.
 - b. Certificate from HOD (Electrical) or his/ her authorized representative of Electrical Department regarding payment to the personnel in his / her presence.
 - c. Undertaking, with respect to payment to the contractor's personnel deployed at PDIL Bhawan Noida, as per applicable rate of minimum wages and compliance of all statutory labour rules.
 - d. Copy of Bank Challan along with Electronic Challan in respect of personnel deployed at PDIL Bhawan, Noida showing the deposition of ESIC and EPF, as applicable.
- 4.2 Monthly Bill with supporting documents shall be forwarded by HOD (Electrical) or his/ her authorized representative to HOD (Finance) as detailed below :
- a. Certification by HOD ((Electrical) or his/ her authorized representative on the face of bill.
 - b. Certification by HOD (Electrical) or his/ her authorized representative on Monthly Attendance Sheet of contractor's personnel deployed at PDIL Bhawan, Noida.
- 5.0 **PRICE REDUCTION CLAUSE :** In case of absence of any personnel (i.e. operator, technician or helper), the lump sum charges payable per month shall be reduced as per the following:
- (i) **in case the personnel is absent for day/ shift**
 $[2X \text{ (No. of days of absenteeism of personnel)} \times \{(\text{Rate of the respective category of personnel applicable as per Sl. No. 1.0 of Part – A of "Schedule of Rates"})\}]$
 - (ii) **in case the personnel is absent for part of day/ shift #**
 $[2X \text{ (No. of hours of absenteeism of personnel)} \times \{(\text{Rate of the respective category of personnel applicable as per Sl. No. 1.0 of Part – A of "Schedule of Rates"} / 8)\}]$
- # No. of hours of absenteeism of personnel for part of day / shift shall be rounded off to next whole number if absenteeism is more than 30 minutes subject to non-submission of valid reason.

- 6.0 **VALIDITY OF CONTRACT:** The contract to be awarded to successful bidders will be valid for 02 (Two) years from effective date of contract, which shall be indicated in Work Order.
- 7.0 **EXTENSION OF CONTRACT:** PDIL at option may consider extension of contract for further period as may be agreed if performance of contractor is found satisfactory.
- 8.0 **OPERATION OF CONTRACT:** This contract shall be operated by HOD (Electrical) or his/her authorized representative of Electrical Department.
- 9.0 **TAX DEDUCTION AT SOURCE:** Applicable income tax as per Income Tax Act shall be deducted at source from Contractor's bills and a certificate towards this deduction shall be issued to the contractor. PAN shall be required for this purpose.
- 10.0 **STATUTORY OBLIGATION:** Contractor shall be responsible to observe and comply with all statutory requirements including Contract Labour Act 1970, Minimum Wages Act 1948, ESI Act 1948, Employees Provident Fund Act 1952, Labour Laws and Regulation and subsequent amendment etc. in vogue of Central Govt. PDIL shall be kept indemnified against any action brought against it for any violation/ non compliance of any Act, Rules and Regulations including contribution under ESI Act, 1948, EPF Act 1952, Wages Act 1948, Payment of Wages Act 1936, payment of Bonus Act 1965, Payment of Gratuity Act 1972 etc. and subsequent amendments etc. All expenses for compliance of above Acts and Regulations shall be borne by the contractor. Contractor shall submit documentary evidence against statutory dues like PF, ESI, Bonus etc. for the personnel deputed at PDIL Bhawan. **Deputation of workers on duty and payment of their wages and other benefits (i.e. ESI contribution, PF contribution, overtime, bonus etc.) shall be strictly as per the notification of the Central Government from time to time and all other applicable statutory acts, rules and regulations in force and as amended from time to time.**
- 11.0 In case any discrepancy is noticed or any complaint is received from the personnel deployed regarding non-payment of wages, PF, ESI and / or any other statutory dues, stern action will be taken against the contractor as deemed fit and as decided by the General Manager, PDIL Noida.
- 12.0 The contractor shall ensure that the personnel deployed by them do not engage in any undesirable or unlawful activities, whether within or outside the PDIL premises, failing which the contractor shall be liable to provide suitable replacement with the written approval of PDIL and the contractor shall be liable to make good to PDIL any losses caused by their activities without prejudice to the right of PDIL to terminate the Contract without any liability on the part of PDIL.
The contractor shall act as an Independent Operating Agency not as an Agent or employee of PDIL.
- 13.0 **BREACH OF CONTRACT:** In case contractor leaves the job at any stage during the currency of the contract, PDIL reserves the right to get the job completed through any other means/ agency at contractor's risk and cost.

TECHNICAL SCOPE

SPECIFICATION FOR OPERATION & MAINTENANCE OF ELECTRICAL POWER DISTRIBUTION SYSTEM INCLUDING VARIOUS OTHER ELECTRICAL EQUIPMENTS AND OPERATION OF 3 Nos. DG SETS INSTALLED AT PDIL BHAWAN, NOIDA

1.0 BRIEF DESCRIPTION OF POWER DISTRIBUTION SYSTEM

- 1.1 Entire requirement of electric power for PDIL Bhawan (nearly 650 KW) is met by PVVNL Grid at 11kV through a gang operated isolator (GOD Switch) of PVVNL installed inside PDIL Bhawan premises on a 2-pole structure. From GOD switch, 11kV supply is taken to PVVNL's metering panel and then to the primary of 11/0.433 kV, 1250kVA oil immersed transformer, installed outdoor through an intermediate 11kV, 1250A indoor type SF₆ Breaker Panel. The secondary of the transformer is connected to a 415V Power-cum-Motor Control Centre having 2000A Air Circuit Breaker (ACB) as incomer. The PMCC comprises of 2 more incomer ACBs for receiving power supply from 2 nos. 600kVA DG Sets. The PMCC also consists of 1 no. bus coupler ACB, outgoing DOL starter feeders, SFU feeders etc. The outgoing feeders from PMCC feed all the electric loads of PDIL Bhawan, which mainly consist of lighting, fans, central air conditioning system, window/ split air conditioners, UPS, lifts, fire fighting system, water coolers, water supply pump motors and miscellaneous other loads.

All interconnecting power and control cables are partly laid in RCC trenches, partly on overhead racks, conduits (embedded in wall) and partly buried underground.

However, DG Sets (2 nos. 600kVA and 1 no. 62.5kVA silent type) are started as per requirement upon failure of PVVNL supply, to feed the entire electrical loads of PDIL Bhawan. 600kVA DG Set no. 1 is primarily meant for catering the load of Central Air Conditioning Unit and 600kVA DG Set no. 2 is for lighting, fans, motors, lifts, room air conditioners etc. Both DG Sets are provided with facility of starting/ stopping in Auto as well as Manual modes. Relevant ACBs are mutually interlocked to prevent parallel operation of Grid and DG power. 62.5kVA DG Set is operated in the night or on weekly off days and holidays for ERP Servers, other servers, air conditioners in server rooms and CCTV when both 600kVA DG Sets are not started because of the minimal load.

Street Light is connected through Solar PV Cells. In case of any problem in system, this light can also be operated through normal power.

1.2 ELECTRICAL LOAD DETAILS

Bulk of electrical loads is lighting load comprising mainly fluorescent lamp and CFL lighting fixtures for indoor lighting and street & area lightings, ceiling/ pedestal/wall/exhaust fans. 2X60kVA and 1X25kVA UPS with Stabilizer/ Bypass panels are also there for feeding supply to IT equipments like servers and computers.

Besides these loads, there is a large Central A/C Plant comprising of compressor motors, chiller pump motors, condenser water pump motors, air handling units, heaters etc., total load of which is 350 KW (approx.). Complete A/C plant is connected through a separate MCC. However operation & maintenance of A/C System including MCC is under separate contract (under Mechanical Department).

Besides the above mentioned loads, 1 no. fire water pump motor, 1 no. jockey water pump motor and 2 Nos. booster water pump motors are also installed in PDIL premises. Although the above fire fighting pump motors are connected to PMCC through a fire fighting panel, but operation & maintenance of fire fighting system is under separate contract.

Although operation of DG Sets is covered under this contract, AMC of the DG Set are under separate contract.

AMC of 2X60kVA and 1X25kVA UPS are also under separate contract.

Street Lighting is being operated by Electrical Department, however AMC of the solar system is under separate contract.

2.0 REQUIREMENT OF OPERATION & MAINTENANCE (O & M) PERSONNEL

- 2.1 Operation of DG Sets shall be required on 24x7 basis, i.e. 24 hours on all seven days of week. For this purpose, the contractor shall ensure availability of 1 operator (skilled category) and 1 helper (semi-skilled category) at any time of the 24 hours on all days throughout the AMC period. The reliever for operator (skilled category) as well as helper (semi-skilled category) shall be common and shall be of skilled category.

Apart from operation of the DG Sets, the contractor shall provide services of electrician (skilled category) and helper (semi-skilled category) for maintenance of the electrical installations mentioned in the above paragraphs and elsewhere in this specification from Monday to Saturday (except Sundays and Holidays) as per below:

1. Electrician (from 0700hrs to 1500hrs)
2. Electrician (from 1500hrs to 2300hrs)
3. Helper to above Electricians (from 0930hrs to 1800hrs, including lunch break of 30 minutes)

Helper to Operator shall also work as Helper to Electrician during 0700hrs to 0930hrs and 1800hrs to 2300hrs from Monday to Saturday, as per job requirement.

For above, contractor shall deploy six (06) skilled category personnel and four (04) semi-skilled category personnel, which is inclusive of one skilled category personnel as reliever. With deployment of above manpower (i.e. 10 nos.), owner shall not entertain any claim of overtime for normal circumstances other than any unforeseen situation/ exigencies. Sample deployment of skilled category and semi-skilled category personnel is attached as Annexure-"VI". However, the contractor shall note that the same is for reference only. The contractor shall follow all statutory acts, rules, regulations, guidelines etc. as applicable from time to time while deploying skilled category as well as semi-skilled category personnel.

Deputation of personnel on duty and payment of their wages and other benefits (i.e. ESI contribution, PF contribution, overtime, bonus etc.) shall be strictly as per the notification of the Central Governments from time to time and all other applicable statutory acts, rules and regulations in force and as amended from time to time.

- 2.2 The operator / electrician (thereafter referred as "Technician") to be deputed by the successful contractor shall be skilled, experienced and energetic and shall be capable to cope with any technically abnormal situation. He must be License Holder to work on HT installations from statutory authority of the State Government (UP) and conversant with operation of DG Sets.
- 2.3 It shall also be contractor's responsibility to provide additional manpower/ materials during a major breakdown or under any unforeseen emergency which may arise at any time and on any day, even on Sundays and Holidays at the rates indicated at PART-B & PART-C of "Schedule of Rates".
- 2.4 Regular consumable items such as fluorescent tubes, CFLs, electronic ballast, MCBs etc. may have to be supplied by the contractor as per the direction of Engineer-in-charge at the rates indicated at PART-C of "Schedule of Rates", the availability of which shall be ensured within next working day.

- 2.5 The operator/ technician shall be fully conversant with the general behavior of various electrical equipment/ apparatus already described above and particularly with the specific makes and types of equipment, described elsewhere in this specification and installed in PDIL Bhawan, Noida.
- 2.6 The operator/ technician must have proper knowledge about electrical diagram e.g. single line diagram, control schematic diagram, alarm circuit diagram, terminal wiring diagram etc. so that he can locate the failure in a logical way and without lapses of time.
- 2.7 The operator/ technician shall be well aware of the Potential Hazards of electricity and necessary precautions he has to take while he is on job. He shall be safety conscious all the time & shall not take any chance to work on "Live Line/ Circuit" under any circumstances.
- 2.8 The operator/ technician, during his working hours, shall be the custodian of all electrical installations. He shall therefore, be responsible for the watch and ward of all electrical equipments along with their normal operation, maintenance etc. He shall not leave his normal working place under any circumstances without permission and shall not allow any unauthorized/ unknown person to enter in the sub-station/ HT Room and any electrical installation.
- 2.9 The operator/ technician must have sufficient knowledge about the first aid requirement when somebody gets electric shock. The contractor shall be responsible for keeping the "shock treatment chart" well maintained.
- 2.10 Technician shall have to go to higher officials' office cum residence/ Guest Houses/ Transit Camps to restore the supply or to change tubes/ bulbs etc. as required from time to time. To & fro conveyance charges for attending the above premises shall be borne by the contractor.

3.0 OPERATIONAL REQUIREMENT

- 3.1 The operational services are required as described in Para 2.0 above. During normal duty hours, the operator/ technician shall be expected to do the following:
 - 3.1.1 Immediately on reporting for duty:
 1. He shall meet the Engineer-in-charge and take necessary instructions for any work to be attended immediately.
 2. The operator/ technician shall go round every electrical installation within the office complex, observe for any abnormality in the running/ live as well as stand still equipment, note it there and report promptly to the Engineer-in-charge.
 3. The operator/ technician shall check the batteries and if required, put the battery on boost charge and shall also check the ventilation system of the battery room.
 4. He shall check the alarm circuits of the 11kV SF₆ panel, 415V PMCC, Battery Charger, UPS etc. by pressing the "Alarm Test" push button and if found not operating shall note and report to Engineer-in-charge immediately. The operator/technician shall remember that a healthy alarm system will act as a good friend and can save him from embarrassments.
 5. He shall check the status of ISOLATED circuits and ensure that status of ISOLATED circuit match with his records of previous day and SAFETY TAGS are properly displayed.
 6. He shall check DG Set for its readiness of operation as & when required as per details given in this "Technical Scope".

7. He shall check operation of the UPS. He shall check alarm of UPS, reading of various meters, room temperature etc.
- 3.1.2 After the initial assessment of the equipment on reporting for duty, if everything is found normal, the operator/technician shall check the following things and take immediate action, if found otherwise:
1. Any complaint about non-functioning of lights, fans, switches, sub-distribution boards or any other electrical installations noted in the Complaint Book. If the complaint is of major nature, he shall bring the same to the notice of Engineer-in-charge.
 2. The stock of distilled water for lead acid battery.
 3. The first aid box and contents therein.
 4. His working tools, megger, testing lamp, consumables required for small repair/maintenance, multi-meter etc.
 5. When requested from other department for isolation of circuits, the operator/technician, in consultation with the Engineer-in-charge, isolate the installation electrically (breaker to be drawn out to isolated position after tripping, SFUs to be switched off and padlocked in isolated position, DOL starter to be switched off, padlocked in 'off' position and control fuses to be withdrawn), put a safety tag (duly signed by Engineer-in-charge) and record the purpose of isolation, time etc. in the log book. THE OPERATOR SHALL NEITHER SWITCH-ON ANY CIRCUIT NOR SWITCH OFF ANY CIRCUIT WITHOUT ANY WRITTEN PERMISSION FROM ENGINEER-IN-CHARGE.
 6. NO BODY SHALL BE ALLOWED TO WORK ON ANY EQUIPMENT UNLESS SAFETY PERMIT/ AVI (AVOID VERBAL INSTRUCTION) IS ISSUED BY AUTHORISED OFFICER.
- 3.1.3 **The operator/ technician shall be responsible for the following:**
1. Maintaining log book/ sheet.
 2. Acknowledgement of all alarms and taking corrective measures to locate and rectify faults as per the drawings/ instructions available to him. When an alarm sounds, it gives a warning for impending fault. So, the operator must not panic, shall keep his cool, acknowledge the audible alarm immediately, inform the Engineer-in-Charge promptly and proceed to locate the origin of alarm. After locating and rectifying the fault, the operator shall remain quite watchful for at least 2/3 hours about the same equipment.
 3. IN CASE OF "TRIP ALARM" THE OPERATOR SHALL NOT ATTEMPT TO SWITCH ON THE CIRCUIT AFTER AKNOWLEDGING THE ALARM & RESETTING THE RELAY. HE SHALL INFORM THE ENGINEER-IN-CHARGE IMMEDIATELY AFTER AKNOWLEDGING THE AUDIBLE ALARM. THEN THE CAUSE OF TRIPPING SHALL BE THOROUGHLY INVESTIGATED, THE CIRCUIT SHALL BE RECHARGED ONLY WHEN ENGINEER-IN-CHARGE SHALL PERMIT.
 4. HOWEVER, IN CASE OF FIRE/ SMOKE IS VISIBLE FROM ANY ELECTRIC EQUIPMENT OR ANY CABLE JOINT/ TERMINATION, THE OPERATOR SHALL FIRST ISOLATE THE CIRCUIT & INFORM THE ENGINEER-IN-CHARGE. BUT IN A SITUATION WHEN HE IS NOT ABLE TO ASCERTAIN ABOUT THE ORIGIN OF SMOKE OR FIRE, HE SHALL NOT HESITATE IN SWITCHING OFF THE 11kV SF₆ BREAKER AND THEN REPORT. HE MUST BE ABLE TO JUDGE THE SITUATION.
 5. When PVVNL supply grid incomer breaker in PMCC shall trip automatically, DG Sets shall start automatically and the DG incomer breakers shall close automatically when respective

DG Sets develop 80% voltage if put in Auto mode. Approximate time taken in change over from grid supply to DG supply is 35 seconds. In Manual mode, the above sequence of operation will have to be performed manually by the DG Set operator. The operator shall ensure tripping of grid incomer breaker and bus coupler breaker before starting the DG Sets and closing the DG incomer breakers. On restoration of normal supply, DG incomer breakers shall trip automatically, grid incomer breaker shall close automatically and DG Sets shall stop automatically after a preset time if put in Auto mode. In Manual mode, the above sequence of operation will have to be performed manually by the DG Set operator. Outgoing breakers for Central AC plant and bus coupler, in any case, are to be operated manually.

6. To make ready the standby unit of any equipment for starting, the operator shall check the relevant control gears, fuses, connection etc. and check the IR values of the machine (if it remains idle for long time) before giving clearance to other department. In case IR value is not within safe limit, clearance shall not be given till IR value improves after heating/dehydration etc.
 7. Any other operational job as per the requirement/ as instructed by the Engineer-in-charge.
- 3.1.4 **Before leaving the office at the end of duty hours, the operator's/ technician's following activities are foreseen:**
1. The operator/ technician shall go round the electric machineries for final check up, note down the log book all readings and apprise the Engineer-in-charge.
 2. Day's all activities shall be recorded indicating proper time, action taken, whether job has been completed, if not, reasons for non-completion and shall be duly signed.
 3. He must see that equipments under maintenance are properly isolated and safety tag displayed. Space heaters of idle equipment are 'ON', battery under float charge condition, DG Auto/ Manual Switch in 'Manual' position, H.T. Room, Metering Room, transformer bay etc. are in locked position and keys kept in "Key Board". A check list for handing over charge to the next shift operator/ Engineer-in-charge shall be filled up by the operator before leaving the working place.
 4. He shall keep all the tools, instruments, consumables under lock & key.
 5. **THE OPERATOR/ TECHNICIAN/ HELPER SHALL NOT LEAVE HIS WORKING PLACE WITHOUT HANDING OVER CHARGE TO HIS RELIEVER IN ANY CIRCUMSTANCES.**
- 3.1.5 The operator/ technician, in addition to his normal duties of operation of electrical equipments installed in PDIL Bhawan, shall also receive any alarm concerning the operation of 3 Nos. of passenger lifts installed in the office complex. When operating lifts get stuck up during its operation either due to failure of power supply or failure of lift control system, the passenger inside will raise alarm. The operator shall immediately identify the particular lift in trouble, locate position of the lift car by opening the landing doors at different floors using the key provided for the purpose. He shall help trapped passengers getting out of car by opening the door from outside. When all trapped passengers come out of the car, the operator shall isolate the lift from PMCC electrically, inform the Engineer-in-charge immediately and put LIFT OUT OF ORDER notice near the lift.

When lift actual maintenance gang takes over and starts work on the faulty lift, the operator shall provide them necessary assistance in isolation/ energization of LIFT CIRCUIT from PMCC on a written request.

4.0 MAINTENANCE REQUIREMENTS

- 4.1 The preventive maintenance, routine maintenance and break down maintenance of various Electrical Equipments excluding the passenger lifts as described below shall be covered under this contract. This shall also include repair of these equipment, if needed.
- 4.2 The bidder shall quote for the services of skilled personnel who have at least 8-10 years of experience in the operation, maintenance and repair of the following electrical equipments. The semi skilled personnel should have 4-6 years of experience of working as assistant to skilled operator/technician:
- i) 11kV Circuit Breaker Panel
 - ii) 415V switchboard comprising of ACB feeders, motor starter feeders, Switch/Fuse outlets etc.
 - iii) Electric Motors up to 150 HP ratings.
 - iv) Battery, Battery Charger and 110V DC Distribution Board.
 - v) Lighting and Power Sub-Distribution Boards including UPS and UPS DB comprising of ELCB, MCB etc.
 - vi) 11/ 0.433kV, 1250 KVA oil filled transformer.
 - vii) Office lighting, outdoor lighting, fans, plug sockets calling bell etc.
 - viii) Canteen electric appliances.
 - ix) Miscellaneous other electric accessories installed in PDIL Bhawan and other installations as stated in clause no. 2.9 above.
 - x) 600kVA/ 62.5kVA DG Sets and associated Control Panels (**operation only**).
 - xi) Lift (**operation only**): As stated in clause no. 3.1.5 above.
- 4.3 The maintenance as enumerated in this specification shall be broadly classified as under:
1. Preventive Maintenance
 2. Routine Maintenance
 3. Break-down Maintenance

4.3.1 PREVENTIVE MAINTENANCE

- 4.3.1.1 Preventive maintenance of various electrical machines/ equipment is required within a fixed period of operation, as per the instruction of machine/ equipment manufacturer, in a planned manner. The maintenance personnel shall chalk out a "Preventive Maintenance Schedule" for all the machineries at the beginning of the year in consultation with other departments and Engineer-in-charge and shall strictly follow the same. The maintenance programme shall be devised in such a way that all concerned departments can do the maintenance simultaneously on one machine and its associated control gears so that minimum down time for the machine shall be there. To achieve the target, "The Preventive Maintenance Schedule" thus planned shall be circulated among other departments to ensure that the particular equipment/ machinery is available for maintenance as per the schedule date.
- 4.3.1.2 Before taking any machine for preventive maintenance, the maintenance personnel shall strictly observe the following steps:
1. Ensure the availability of equipment as per the schedule.
 2. Get the equipment electrically isolated and obtain permit to work from Engineer-in-charge. He must see that safety tag is displayed in the concerned Switchgear properly.
 3. Consult the equipment history card/ log book for any abnormality during its operation.
 4. Make sure that spares are in stock.

After the maintenance job is over, the maintenance personnel shall take trial run of the equipment for at least 2 hours and observe any abnormal functioning. During trial run following checks are suggested:

A. SWITCHGEARS

- i) Any abnormal sound from any component in switchgears/ control gears.
- ii) Circuits function in normal way when a fault is simulated.
- iii) Any overheating of terminal connections, contacts etc.

B. TRANSFORMERS

- i) Leakage of oil from any joints.
- ii) Temperature of winding and oil.

C. OTHER EQUIPMENTS

As per the experienced maintenance personnel.

If the trial run is found satisfactory, the maintenance personnel shall give clearance in writing to the operator. The operator shall, however, energize the equipment only when the other operation group makes a written request for energization.

D. Following Work to be carried out on Yearly Basis:

- i) Servicing of all HT & LT Circuit Breaker
- ii) Testing of all relays and calibrating them with relay test kit.
- iii) Recording the IR values of transformer

4.3.2 ROUTINE MAINTENANCE

Routine maintenance of equipment shall include the following:

1. Cleaning of the equipment with blower, vacuum cleaner, petrol, CTC or by any other means, as applicable regularly.
2. Checking tightness of electrical connections and tightening of the loose connections as required. (Any termination found loose and generating heat shall be tightened properly).
3. Checking of earth pits, earthing connections to equipment, watering of earth pits etc.
4. Lubricating of breaker operating mechanism.
5. Checking of electrical contactors, switches, O/L relays for any overheating/ burning and replacement of faulty components with spare ones (to be supplied by owner or by the successful bidder at his quoted rates).
6. Checking of electric motors in case the same malfunction and on line greasing wherever required. If necessary, the technician may have to remove the defective motor from foundation, put a spare similar motor in its place, make all connections and take trial run and handover the same to the concerned department.
7. Checking of 110V Lead Acid Battery weekly for the specific gravity or electrolytic voltage per cell, level of electrolyte etc. topping up with distilled water as and when required to maintain the batteries in perfect running condition.
8. Checking of lighting system and replacement of faulty tubes and faulty components, as necessary.
9. Replacement of faulty ceiling/ bracket fans, exhaust fans, switches, regulators etc.
10. Checking and rectification of faulty call bells and associated components.

11. Checking and repair of faulty plug points.
12. Checking for oil leakage from transformer, silicagel breather etc. and replacement of silicagel with new charge, when required.
13. Any other electrical maintenance job as may be required.

4.3.3 **BREAKDOWN MAINTENANCE**

Breakdown maintenance is such type of maintenance which cannot be predicted but required to be done immediately after a breakdown for continuity of service. This shall, however, be limited to the equipment which develops fault/ gets burnt during its running condition. A few breakdown maintenances are outlined below:

1. Re-doing of a burnt cable termination and replacement of burnt cable.
2. Replacing of burnt switchgear components with spare one after thorough cleaning, rewiring of burnt wiring, if necessary, checking for correctness of the wiring and putting back on service again.
3. Replacing of a burnt motor/ mechanically damaged motor with new spare one, making cable termination and taking trial run before handing over.
4. Replacement of motor bearing damaged during operation, with new one.
5. Any other as the situation warrants.

5.0 **DUTIES OF MAINTENANCE PERSONNEL**

5.1 The personnel deputed by the contractor for preventive day to day maintenance service shall be responsible for the following:

1. Maintenance of all the records of preventive, routine and break down maintenance, minor repair, if any for all the equipment in a prescribed manner.
2. Maintenance of all records of spares issued by the owner or supplied by the bidder at his quoted prices, which are used at the time of maintenance.
3. Supply of all consumables e.g. cotton waste, cleaning brushes, petrol, petroleum jelly, grease, emery cloth/ paper, insulating tapes etc.
4. All working tools, as required, during the maintenance e.g. screw drivers of all sizes, insulated pliers of all sizes, spanners of all kinds and sizes, Allen keys of all sizes, torque wrenches, bearing pullers suitable to remove bearings of fractional HP motors to 150 HP motors, hand drills and blowers, files of different kinds and sizes, Meggers 500 V & 1000 V, multi-meters, test lamps, mercury-in glass thermometers of different ranges etc. shall be kept available.

5.2 The technician shall be responsible for the safe custody of his tools and consumables. In addition, he shall also be responsible for the safe custody of maintenance tools/ accessories/ consumables provided for the purpose by the owner.

6.0 **REPAIR, ERECTION & OTHER MISCELLANEOUS JOBS**

6.1 Besides operation and maintenance jobs as detailed in the contract, the contractor have to undertake few other jobs as outlined below, if the owner so desires.

6.2 Miscellaneous jobs the contractor may have to undertake at the discretion of owner are:

- 6.2.1 Repair/ Rewinding of electric motors rating ranging from fractional HP to 150 HP including supply of all materials of appropriate sizes/ types.
- 6.2.2 Laying & termination of cables in pre-cast trenches and buried under soil including supply of materials like cable glands, lugs, cables, relevant other terminating accessories, class 'A' bricks, sands etc. Wherever it shall be buried under soil, digging of soil, refilling the dug trench after laying of cables with soil and compacting the soil to the desired level shall also be in the scope.
- 6.2.3 Laying and termination of earth conductors for making earthing connection of equipment with earthing grid.
- 6.2.4 Dehydration & filtration of transformer oil, testing of pre-filtered and filtered oil at recognized testing laboratory as per ISS including supply of transformer oil of appropriate grade and specification in sealed non returnable barrels.
- 6.2.5 Notwithstanding the electrical system details & equipment described herein, the O&M services shall be deemed to extend to any other electrical item/ machine which may be installed in the premises during operation of the contract.

7.0 **SPECIFICATION FOR OPERATION OF 600kVA & 62.5kVA DG SETS**

7.1 **SYSTEM DESCRIPTION**

Refer Clause Nos. 1.1 & 1.2 above.

7.2 **OPERATION REQUIREMENTS**

7.2.1 **DIESEL ENGINE OF DG SETS**

- 7.2.1.1 The engine operator must be fully conversant with the operation of Diesel Engine, preferably with the operation of Engine of similar models as installed in PDIL Bhawan. The operator must also assume responsibility of engine care while engine in operation.
- 7.2.1.2 The operator must keep an operating manual handy in the office (a copy will be supplied by the owner to the successful bidder) and he shall strictly follow the instructions given therein.
- 7.2.1.3 A few important operating instructions are enumerated below for operators to learn by heart:
 - 1. Operating as much as possible at three quarter throttle or load range.
 - 2. Avoiding operation for long periods at engine idle speeds or at maximum horse power levels in excess of 5 minutes.
 - 3. Developing the habit of closely watching engine instruments during operation.
 - 4. Operating with a power requirement that allows acceleration to governed speed when conditions require more power.
 - 5. Checking Oil Level every 10 hours during the break period.
- 7.2.1.4 The operator shall check the following system immediately on reporting for duty and take the appropriate action as per "O & M Manual" to keep the engine ready for start and take load all the time during office hours:
 - 1. Priming of fuel system:
 - (i) Check and fill fuel filter with clean no. 2 diesel fuel oil.
 - (ii) Check and fill, if necessary, fuel tank,
 - (iii) Check adjustment of injector and valve and adjust if required.

2. Priming of lubricating system:
 - (i) Check lubricating oil level in the crank case with the marking in dip stick and fill, if necessary, with clean appropriate engine oil,
 - (ii) Crank engine at least 15 seconds (with fuel shut off valve closed or disconnected to prevent starting) maintaining external oil pressure at a minimum of 15 psi,
 - (iii) Check that oil has reached up to all points in tappets.
 3. Check Hydraulic Governor: Oil level in Governor Sump must be at full mark on dip stick.
 4. Check Air Connections: All Air Connections to compressor, air equipment, air cleaners and air crossovers must be secured.
 5. Check Engine Coolant supply:
 - (i) Check Coolant Level in the radiator after removing the cap and add coolant, if needed.
 - (ii) Make visual check for leaks and open water filter shut off valves.
 6. Check the starting Battery:
 - (i) Check the open circuit voltage and if required, put the battery for boost charging.
 7. Check the fuel oil level in Service Tank and if necessary, fill it up to the mark.
 8. Check the ventilation system for intake air.
 9. See the exhaust fan in running condition.
- 7.2.1.5 During running of the Engine, the operator keep watch on (i) Engine Speed, (ii) Oil Temperature, (iii) Water Temperature, (iv) Oil Pressure & (v) Engine Exhaust. Any sudden increase in oil temperature without appreciable increase in load or sudden drop of oil pressure is a warning of possible mechanical failure and therefore, should be promptly reported to Engineer-in-charge after shutting down the engine.
- 7.2.1.6 Engine Shut Down: Idling of engine for 3 to 5 minutes before shutting down is essential to allow lubricating oil and water to carry heat away for the combustion chamber, bearings, shafts etc.
- 7.2.1.7 The operator shall also conversant with all the precautions as enumerated in the "O & M Manual" and follow them strictly. Any negligence on the part of the operator which may cause damage during running of the engine shall not be tolerated and the contractor shall bear the entire responsibility.
- 7.2.2 ALTERNATOR OF DG SETS**
- 7.2.2.1 On reporting for duty the operator shall check the healthiness of all power and earthing connections to generator & ventilating louvers are clean. Any abnormality shall be promptly reported to the Engineer-in-charge.
- During running of the engine, the operator shall keep close watch on the alternator surface temperature and bearing temperature, any abnormal noise from the alternator bearings and any abnormal fluctuation of voltage and shall promptly report to the Engineer-in-charge.
- 7.2.3 DG CONTROL PANELS**
- 7.2.3.1 These panels are normally activated during the running of the DG Set. However, the operator on reporting for duty shall check the following:

1. All the control fuses to ensure that 110V DC supply & 24V DC supply are in healthy condition.
2. 415V, 3 ph. Supply from grid in healthy condition.
3. All signal lamps in healthy condition. Replace fused bulbs.
4. All relays in reset condition.
5. Alarm circuit is in reset and healthy condition.
6. Auto/ Manual Switch in "Manual" position.
During running of the DG Set, the operator shall keep watch on the following and any abnormality found therein shall promptly be reported to the Engineer-in-charge.
 - (i) Voltage between all three phases.
 - (ii) Currents on all three phases.
 - (iii) Temperature of Generator winding through temperature scanner.
 - (iv) Voltage of Mains (Grid).
 - (v) Signal Lamps.
 - (vi) Power Factor of Load.
 - (vii) Any other abnormal condition if alarm comes.

7.3 **MAINTENANCE REQUIREMENT**

- 7.3.1 No Annual Overhauling Maintenance is in the scope of the bidder. However, the operator shall perform daily/ weekly/ monthly physical checks of the DG Set and allied equipment as given in "O & M Manual".

7.4 **TROUBLE SHOOTING**

- 7.4.1 When the operator encounters some problems either during running or when the set is at standstill, he shall investigate the cause of trouble and take corrective action immediately as per the instructions given in "O & M Manual" and shall bring to the notice of Engineer-in-charge promptly.

7.5 **DEPLOYMENT OF PERSONNEL**

- 7.5.1 Personnel required for the operation of the DG Set must be highly skilled in similar jobs and should have 8-10 years proven experience in operation of DG Set.
- 7.5.2 **WORKING HOURS:** For contract purpose, working hours and deployment of personnel shall be in accordance with Clause No. 2.1 of "Technical Scope". However, contractor will have to provide adequate materials and tools / tackles to meet operation and maintenance requirements after normal working hours also, on instruction from PDIL's Engineer-in-charge.
- 7.5.3 **UNIFORM:** The personnel deployed by contractor shall wear uniform as prescribed by Engineering-in-charge. The personnel deployed by contractor not complying this order may not be allowed entry in PDIL Bhawan.
- 7.5.4 The contractor shall have to issue an Employment Card to each personnel within 3 days of employment of the personnel. The card is required to be maintained upto date and any change in the particulars should be entered therein.

Sample deployment of skilled category and semi-skilled category personnel in a month

Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue

1. DG Operator and Helper

A-Shift (0700hrs to 1500hrs)																														
1	DG Operator-1	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P
2	Helper-1 for DG Operator-1	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	*

B-Shift (1500hrs to 2300hrs)																														
1	DG Operator-2	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P
2	Helper-2 for DG Operator-2	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P

C-Shift (2300hrs to 0700hrs)																														
1	DG Operator-3	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	P
2	Helper-3 for DG Operator-3	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P

Reliever																														
1	DG Operator-cum-Helper	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P

2. Electrician

1	Electrician – 1 (0700hrs to 1500hrs)	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P
2	Electrician – 2 (1500hrs to 2300hrs)	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P

3. Helper to Electricians

General Shift (0930hrs to 0600hrs, including lunch break of 30 minutes)																														
1	Helper-4 to Electrician-1/ Electrician-2	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P	P	P	P	P	*	P	P	P	P	P	*	P	P

Helper to DG Operator shall also work as Helper to Electrician during 0700hrs to 0930hrs and 1800hrs to 2300hrs from Monday to Saturday as per job requirement
 * Weekly OFF

FORMAT FOR VENDOR DATA

1. Name of the Firm _____
2. Name of the Contact Person for this ITB _____
3. Address of the Firm

4. Telephone No. _____
5. Fax No. _____
6. E mail ID _____
7. Activities of the Firm relevant to our requirement as per this ITB _____

8. Time Span spent in the above business and achievements if any:

9. Record of Experience: Please enclose a separate list of your Clients as Annexure-“VIII” and in support of your statement please also enclose copies of documentary evidences.
10. Man Power: please furnish in Annexure-“IX” details of your personnel of the categories of Engineers, Skilled Operator/ Technician, Semi-Skilled Helper who qualify our ITB requirements as per Clause No. 2.1 to 2.7 of “Technical Scope”.
11. Statement of Capability: Please furnish details of your financial capability in the FORMAT enclosed as Annexure-“X”.

Date:

Signature of Bidder _____

Name : _____

Designation : _____

Company Seal :

FORMAT FOR RECORD OF EXPERIENCE

Sl. No.	Name of Client	Contract No.	Value	Contact Person with Phone No. of Client

Date:

Signature of Bidder _____

Name : _____

Designation : _____

Company Seal :

FORMAT FOR STATEMENT OF MAN POWER

Sl. No.	Category	Name	Age	Qualification	Experience in the field
1.0	Engineer				
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
1.10					
2.0	Skilled Operator/ Technician				
2.1					
2.2					
2.3					
2.4					
2.5					
2.6					
2.7					
2.8					
2.9					
2.10					
2.11					
2.12					
2.13					
2.14					
2.15					
3.0	Semi-skilled Helper				
3.1					
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
3.10					
3.11					
3.12					
3.13					
3.14					
3.15					

Date: _____

Signature of Bidder _____

Name : _____

Designation : _____

Company Seal : _____

FORMAT FOR STATEMENT OF CAPABILITY**1. FINANCIAL**

Sl. No.	Annual Turnover Financial Year	
1.1	2014-2015	
1.2	2015-2016	
1.3	2016-2017	

2. RESOURCES

2.1	Nos. of Employees	
2.2	Nos. of Engineers	
2.3	Nos. of Skilled Operator / Technician	
2.4	Nos. of semi-skilled Helper	
3.0	Details of Proprietor/ Chief Executive	
4.0	Personnel Risk Coverage	
5.0	EPF Registration No. (Proof to be attached)	
6.0	ESI Registration No. (Proof to be attached)	
7.0	Sales Tax Registration No. (Proof to be attached)	
8.0	IT Clearance Certificate latest (Proof to be attached)	
9.0	PAN (Proof to be attached)	

Date:

Signature of Bidder _____

Name : _____

Designation : _____

FORMAT OF DETAILS FOR PAYMENT

Bidders are required to submit the following details on the company's **letter head** for online transfer to amount to their account:

1.	Contractor Name / Company Name	
	Address:	
	Phone No.	
	E-mail ID	
2. a)	Name of the Bank	
b)	Address of the Branch	
c)	Telephone No.	
d)	9 Digit Code number of the Bank and Branch appearing on the MICR cheque issued by the Bank	
e)	11 Digit NEFT/ IFSC Code of the Bank Branch	
f)	Account Type (SB/CC/CA)	
g)	Bank Account No.(as appearing on the Cheque)	
h)	Permanent Account Number (PAN) Under Income Tax Act.	
i)	Service Tax Registration Number	
j)	Name of Authorized Signatory	
k)	Contact Person Name	

We hereby declare that the particulars given above are correct and complete

Date:

Signature of Bidder _____

Name : _____

Designation : _____

Company Seal :

SCHEDULE OF RATES

(FOR SERVICES REQUIRED FOR OPERATION AND MAINTENANCE OF ELECTRICAL POWER DISTRIBUTION SYSTEM INCLUDING VARIOUS OTHER ELECTRICAL EQUIPMENTS AND OPERATION OF DG SETS INSTALLED AT PDIL BHAWAN, NOIDA)

SUMMARY OF PRICES

SL. NO.	PARTICULARS	'SOR' REFERENCE	PRICE (Rs.)
1.0	Total price of PART - A at Sl. No. 1.11	PART - A	
2.0	Total price of PART - B at Sl. No. 2.3	PART - B	
3.0	Total price of PART - C at Sl. No. 3.24	PART - C	
4.0	Total quoted price including all taxes & duties mentioned in PART – A, PART – B and PART – C above (1.0 + 2.0 + 3.0)	(In Figure) Rs.	

NOTE :

- 1) Bidder shall quote as per S.O.R only. No comment, explanation or clarification in S.O.R is applicable. No condition in price part shall be acceptable.
- 2) Summary of Prices shall be derived from the sum of price quoted in PART-A, PART-B and PART-C and the same shall tally with the 'Summary of Prices' indicated in above table. In case of any discrepancy between the two, price as worked out based on break up of prices in respective PARTS shall be considered for evaluation.
- 3) The above quoted figure at Sl. No. 4.0 shall be considered for evaluation of overall lowest bidder for the purpose of award of contract. However, total contract / P.O. value shall be calculated on the basis of requirement of deployed personnel for 2 years (24 months).

SCHEDULE OF RATES**1.0 PART – A**

Sl. No.	Description	Price (in Rs.)	
		Skilled Category	Semi-Skilled Category
1.0	Minimum wage per day (as on 01.04.17)	653.00	593.00
1.1	<u>EPF@13.36% of 1.0 above</u>	87.24	79.22
1.2	<u>ESIC@4.75% of 1.0 above</u>	31.02	28.17
1.3	Total rate per man per day (1.0+1.1+1.2)	771.26	700.39
1.4	Working days	26	26
1.5	Wages per man per month	20052.76	18210.14
1.6	Number of Personnel	6	4
1.7	Wages per month	120316.56	72840.56
1.8	Total wages per month	193157.12	
1.9	Contractor's service charges per month <u>(to be quoted in Rupees only)</u> (including charges for uniform and all other miscellaneous charges, if any)		
1.10	Taxes & Duties		
1.10.1	GST (Bidder to indicate the applicable rate of GST @ % extra along with corresponding HSN/ SAC No.)		
1.11	TOTAL (1.8+1.9+1.10.1)		

Notes:

- Contractor's service charges per month, including all other miscellaneous charges, if any, indicated in Sl. No. 1.9 above shall remain firm for the entire tenure of the contract.
- The charges for providing two (02) sets of uniform per personnel deployed shall be included in the rate quoted in Sl. No. 1.9 above.
- Minimum wage per Skilled Category personnel & per Semi-Skilled Category personnel per day mentioned at Sl. No. 1.0 above is as per latest Minimum Wage Notification dated 20.04.17 of Govt. of India, Ministry of Labour & Employment. However, the said rate of Minimum Wages will be revised in future as per the Notification of Minimum Wages of Government of India, Ministry of Labour & Employment from time to time and payment shall be made accordingly against documentary evidence. Further, the rates of EPF & ESIC are mentioned at Sl. No. 1.1 & 1.2 respectively as notified by EPF & ESIC authorities presently. In case, any variation in the said rates, as affected by EPF & ESIC authorities, is effected in future, the payment shall be made according to the revised rates against documentary evidence.
- Bonus paid as per statutory norms (minimum) to eligible deployed personnel will be extra and will be reimbursed on submission of claim and documentary evidence.
- Payment for all months shall be made for 26 days amount for each month irrespective of number of days in a month.
- Deployment of personnel shall be in accordance with Clause No. 2.1 of "Technical Scope".
- In case of absence of any personnel (i.e. operator, technician or helper), the lump sum charges payable per month shall be reduced as per the following:
 - in case the personnel is absent for day/ shift**
[2X (No. of days of absenteeism of personnel) X {(Rate of the respective category of personnel applicable as per Sl. No. 1.0 of above)}]
 - in case the personnel is absent for part of day/ shift #**
[2X (No. of hours of absenteeism of personnel) X {(Rate of the respective category of personnel applicable as per Sl. No. 1.0 of above) / 8}]

No. of hours of absenteeism of personnel for part of day / shift shall be rounded off to next whole number if absenteeism is more than 30 minutes subject to non-submission of valid reason.

- h) The contractor will not change the operators/ technicians/ helpers on duty in PDIL without permission of Engineer-in-charge.
- i) All applicable taxes and duties for PART - A and PART - B shall be paid at actual at the prevailing rate only.
- j) The un-priced copy of 'SOR' must indicate the Tax % along with corresponding HSN code as applicable. In case HSN code and/or its % is found to be incorrect, PDIL reserves the right to evaluate the Bid considering the correct code and/or % Tax applicable.
- k) Bidder to ensure to deposit GST Tax liability and filing of GST Return within prescribed time limit, so that PDIL gets CENVAT benefit against the same.

SCHEDULE OF RATES**2.0 PART – B (OPTIONAL RATES)**

Sl. No.	Job Description	Unit	Qty	Rate (Rs.)
1	2	3	4	5
FOR SUPPLY OF ADDITIONAL MANPOWER				
2.1	For providing additional manpower during a major breakdown or under any unforeseen emergency which may arise at any time and on any day, even on Sundays and Holidays including supply of consumables, operating tools etc. as per clause no. 3 to 4 of 5.1 of “Technical Scope” (but excluding supply of spares) for 8 hrs duty in one day of 24 hrs.:			
2.1.1	Skilled operator / technician with adequate experience duly licensed to work in HT installations.	Man day	1	
2.1.2	Helper with adequate experience to work as assistant to skilled operator/technician.	Man day	1	
2.1.3	Skilled operator / technician with adequate experience duly licensed to work in HT installations.	Man hours	1	
2.1.4	Helper with adequate experience to work as assistant to skilled operator/technician.	Man hours	1	
2.1.5	Total (2.1.1 + 2.1.2 + 2.1.3 + 2.1.4)	--	--	
2.2	Taxes & Duties			
2.2.1	GST (Bidder to indicate the applicable rate of GST @ % extra along with corresponding HSN/ SAC No.)			
2.3	TOTAL of PART – B (2.1.5 + 2.2.1)			

SCHEDULE OF RATES**3.0 PART – C RATES FOR OTHER JOBS INCLUDING SUPPLY**

The rates quoted in this 'Schedule of Rates' (Part-C) shall be inclusive of all taxes & duties and shall be firm during the entire contractual period irrespective of any variation in the rate of taxes & duties including inclusion of any new taxes & duties. However, the contractor shall be required to indicate the applicable taxes, duties etc. separately while invoicing to PDIL.

Sl. No.	Job Description											
3.1	Repair of 3 phase, 415 V, 50 Hz. Induction motors including supply of respective materials: i) Rewinding of burnt motor with new super enamel copper wire of the same size as that of old /burnt winding, cleaning the slots etc. and including supply of super enamel copper wires, insulating papers/ tapes, wedges etc. as required duly varnished with insulating varnish, baked in electric oven and tested in recognized testing laboratory and also inclusive of transportation charges from and to PDIL Bhawan premises ii) Replacement of both DE & NDE Bearings											
		Unit	Rewinding				Bearings					
			Qty.	Unit Rate (In Rs.)		Qty.	Unit Rate (In Rs.)					
3.1.1	1.1 KW (1.5 HP)	Each	1			1						
3.1.2	1.5 KW (2.0 HP)	Each	1			1						
3.1.3	2.2 KW (3.0 HP)	Each	1			1						
3.1.4	3.7 KW (5.0 HP)	Each	1			1						
3.1.5	5.5 KW (7.5 HP)	Each	1			1						
3.1.6	7.5 KW (10.0 HP)	Each	1			1						
3.1.7	11.1 KW (15.0 HP)	Each	1			1						
3.1.8	15.0 KW (20.0 HP)	Each	1			1						
3.1.9	30.0 KW (40.0 HP)	Each	1			1						
3.1.10	45.0 KW (60.0 HP)	Each	1			1						
3.1.11	112.0 KW (150.0 HP)	Each	1			1						
3.2	Repair of ceiling fan, pedestal fan and wall mounted fan motors including supply of respective materials: i) Rewinding ii) Replacement of bearing iii) Replacement of bushings iv) Replacement of capacitors											
		Unit	Rewinding		Bearing		Bush		Capacitor			
			Qty.	Unit Rate (In Rs.)	Qty.	Unit Rate (In Rs.)	Qty.	Unit Rate (In Rs.)	Qty.	Unit Rate (In Rs.)		
3.2.1	1200 mm sweep ceiling fan	Each	1		1		1		30			
3.2.2	1400 mm sweep ceiling fan	Each	1		1		1		1			
3.2.3	400 mm sweep pedestal/ wall mounted fan	Each	4		1		1		1			
3.3	Repair of exhaust fan motors including supply of respective materials: i) Rewinding ii) Replacement of bearing iii) Replacement of bushings iv) Replacement of capacitors v) Replacement of shaft											
		Unit	Rewinding		Bearing		Bush		Capacitor		Shaft	
			Qty.	Unit Rate	Qty.	Unit Rate	Qty.	Unit Rate	Qty.	Unit Rate	Qty.	Unit Rate

				(In Rs.)		(In Rs.)		(In Rs.)		(In Rs.)		(In Rs.)
3.3.1	610 mm sweep	Each	1		1		1		1		1	
3.3.2	457 mm sweep	Each	1		1		1		1		1	
3.3.3	380 mm sweep	Each	1		1		1		1		1	
3.3.4	305 mm sweep	Each	1		1		1		1		1	
3.4	Supply and laying of 1100 V grade PVC insulated, GI round wire/ flat armoured, stranded Aluminium conductor cables as per IS: 1554, approved make in pre-cast RCC trench/ under soil at minimum depth of 700 mm in excavated trench after brick troughing/ on overhead ladder type cable trays or risers including digging of cable trench, brick troughing with Class-A bricks and dry sand (supply of brick & sand inclusive) laying of cable, back filling with soil, compacting & removing extra soil from site of excavation, clamping and dressing of cables in RCC trench/ overhead trays etc. of following size of cables:											
				Unit	Supply			Laying				
					Qty.	Unit Rate (In Rs.)		Qty.	Unit Rate (In Rs.)			
3.4.1	3 Core 10 sq mm			M	1			1				
3.4.2	4 Core 10 sq mm			M	1			1				
3.4.3	3 Core 16 sq mm			M	1			1				
3.4.4	4 Core 16 sq mm			M	1			1				
3.4.5	3.5 Core 25 sq mm			M	1			1				
3.4.6	3.5 Core 35 sq mm			M	1			1				
3.4.7	3.5 Core 50sq mm			M	1			1				
3.4.8	3.5 Core 70 sq mm			M	1			1				
3.4.9	3.5 Core 95 sq mm			M	1			1				
3.4.10	3 Core 120 sq mm			M	1			1				
3.4.11	3.5 Core 300 sq mm			M	1			1				
3.4.12	3.5 Core 400 sq mm			M	1			1				
3.5	Same as Sl. No. 3.5 above but control cables with stranded copper conductor of following sizes:											
				Unit	Supply			Laying				
					Qty.	Unit Rate (In Rs.)		Qty.	Unit Rate (In Rs.)			
3.5.1	3 Core 2.5 sq mm			M	1			1				
3.5.2	7 Core 2.5 sq mm			M	1			1				
3.5.3	10 Core 2.5 sq mm			M	1			1				
3.5.4	12 Core 2.5 sq mm			M	1			1				
3.5.5	19 Core 2.5 sq mm			M	1			1				
3.6	Supply of 1.1 KV grade single core multi strand (Cu), PVC insulated cable for internal wiring in PCC/PMCC.											
				Unit	Supply			Laying				
					Qty.	Unit Rate (In Rs.)		Qty.	Unit Rate (In Rs.)			
3.6.1	120 Sq. mm.			M	1			1				
3.6.2	70 Sq. mm.			M	1			1				
3.6.3	50 Sq. mm.			M	1			1				
3.6.4	35 sq. mm.			M	1			1				
3.6.5	16 sq. mm.			M	1			1				
3.7	Termination of already laid PVC insulated GI round wire/ flat armoured, PVC sheathed overall, stranded aluminium conductor power cables and stranded copper conductor control cables at Switch Boards/						Unit	Qty.	Unit Rate (In Rs.)			

	feeder modules/ motors or any other equipment including glanding, crimping, termination of cable ends including supply of compression type, rolled aluminium cable glands, crimping type Aluminium/ copper lugs of approved makes etc. as required for the completeness of job for the following sizes:			
3.7.1	3 Core 10 sq mm	Nos.	1	
3.7.2	4 Core 10 sq mm	Nos.	50	
3.7.3	3 Core 16 sq mm	Nos.	1	
3.7.4	4 Core 16 sq mm	Nos.	1	
3.7.5	3.5 Core 25 sq mm	Nos.	1	
3.7.6	3.5 Core 35 sq mm	Nos.	1	
3.7.7	3.5 Core 50sq mm	Nos.	1	
3.7.8	3.5 Core 70 sq mm	Nos.	1	
3.7.9	3.5 Core 95 sq mm	Nos.	1	
3.7.10	3 Core 120 sq mm	Nos.	1	
3.7.11	3.5 Core 300 sq mm	Nos.	1	
3.7.12	3.5 Core 400 sq mm	Nos.	1	
3.7.13	3 Core 2.5 sq mm	Nos.	1	
3.7.14	7 Core 2.5 sq mm	Nos.	1	
3.7.15	10 Core 2.5 sq mm	Nos.	1	
3.7.16	12 Core 2.5 sq mm	Nos.	1	
3.7.17	19 Core 2.5 sq mm	Nos.	1	
3.8	Supply & crimping of copper lugs of the following size for connecting to switches etc inside compartment of PCC/PMCC.	Unit	Qty.	Unit Rate (In Rs.)
3.8.1	120 sq. mm. (Cu)	Each	1	
3.8.2	70 sq. mm. (Cu)	Each	1	
3.8.3	50 sq. mm. (Cu)	Each	1	
3.8.4	35 sq. mm. (Cu)	Each	1	
3.8.5	16 sq. mm. (Cu)	Each	1	
3.9	Supply of following type & size of L & T switch for compartment of PCC/PMCC or DB	Unit	Qty.	Unit Rate (In Rs.)
3.9.1	FB 250 complete	Each	1	
3.9.2	FN 125 complete	Each	6	
3.9.3	FA 100 complete	Each	3	
3.9.4	FF 63 complete	Each	11	
3.9.5	FAC 100 or equivalent complete	Each	2	
3.10	Supply & Laying of following size GI strip underground including making of trench & back filling after laying the earth strip and jointing of strips as required.	Unit	Qty.	Unit Rate (In Rs.)
3.10.1	75 mm X 8 mm GI Strip	M	1	
3.10.2	50 mm X 6 mm Strip	M	1	
3.10.3	30 mm X 5 mm GI Strip	M	1	
3.10.4	25 mm X 4 mm GI Strip	M	1	
3.11	Supply, fabrication and erection of MS Cable racks, risers, hangers, bare frame, foundation supports etc. for switch boards, junction boxes, switch sockets, cable supports including drilling, welding, bolting, riveting, grouting steel structure, providing one coat of red oxide primer and two coats of synthetic	Unit	Qty.	Unit Rate (In Rs.)
		Kg.	1	

	enamel paint including supply of steel structural, all consumables, necessary hard wares, paints etc. as required. The job shall be carried out as per instruction of Engineer-in-charge/ drawing supplied.			
3.12	Filtration/ Dehydration of Oil of 1250 KVA Oil filled transformer by streamline filter with contractor's own oil filtration machine. for bringing the di-electric strength to the required level as per latest ISS, testing of oil before and after filtration in recognized testing laboratory, complete with all labour, and materials including transportation of oil filter m/c at PDIL Bhawan office complex premises and as per direction of Engineer-in-charge (excluding supply of Tr. Oil).	Unit	Qty.	Unit Rate (In Rs.)
3.12.1	with required size of DG Set to run oil filtration machine	LS	1	
3.12.2	without required size of DG Set to run oil filtration machine	LS	1	
3.13	Supply of Transformer oil as per latest IS for Power Transformer	Per L	1	

3.14	Supply of following type of MCB of breaking capacity 10kA of Havells/ HPL/ Indo Asian / Legrand / Standard make	Unit	Qty.	Unit Rate (In Rs.)
3.14.1	Upto 32 A SP	Nos.	21	
3.14.2	Upto 32 A , DP	Nos.	2	
3.14.3	40 A, DP	Nos.	1	
3.14.4	Upto 32 A, TP	Nos.	1	
3.14.5	40 A, TP	Nos.	1	
3.14.6	50/63 A, TP	Nos.	1	
3.14.7	Upto 32 A, TPN / FP	Nos.	1	
3.14.8	40 A, TPN / FP	Nos.	1	
3.14.9	50/63 A, TPN / FP	Nos.	8	
3.15	Supply of following type of CFL lamps (Bajaj/ Crompton/ Havells/ Indo Asian/ Osram/ Philips/ Standard make)	Unit	Qty.	Unit Rate (In Rs.)
3.15.1	5W, 2 Pin	Nos.	8	
3.15.2	11W, 2 Pin	Nos.	37	
3.15.3	18W, 2 Pin	Nos.	50	
3.15.4	36W, 4 Pin	Nos.	36	
3.16	Supply of 230V, single phase, 50 Hz, 36W fluorescent tube (Anchor/ Bajaj/ Crompton/ Havells/ Osram/ Philips/ Surya/ Wipro make)	Unit Nos.	Qty. 129	Unit Rate (In Rs.)
3.17	Supply of energy efficient rapid start, flicker free high frequency (more than 20 KHz) Electronic Ballasts (Bajaj/ Crompton/ Havells/ Indo Asian/ Osram/ Philips/ Standard make) of following type:	Unit	Qty.	Unit Rate (In Rs.)
3.17.1	18W	Nos.	13	
3.17.2	36W	Nos.	187	
3.17.3	2 X 36W	Nos.	10	

Check List

(Summary of Terms and Conditions)

(Bidder must confirm point by point and strike out whichever is not applicable)

Name of Bidder:

Offer No.

Sl. No.	Description	ITB requirement	Bidder's Confirmation/ Acceptance/ Comments
1.	Earnest Money Deposit (EMD) of Rs. 88,000	To submit	
2.	Submission of following Annexures, duly filled in with all required details :		
a)	Annexure – I	Submission of documents in support of meeting Pre Qualification Criteria	
b)	Annexure - III	General Conditions of Contract (GCC) duly signed and stamped	
c)	Annexure - IV	Special Conditions of Contract (SCC) duly signed and stamped	
d)	Annexure - V	Technical Scope of ITB, duly signed and stamped	
e)	Annexure - VII	Format for Vendor Data, duly filled in with all details (The detailed particulars of organization must be furnished in the FORMAT along with the bid failing which the offer is liable to be rejected.)	
f)	Annexure - VIII	Format for Record of Experience Form, duly filled in with all details	
g)	Annexure - IX	Format for Statement of Manpower, duly filled in with all details	
h)	Annexure - X	Format for Statement of Capability, duly filled in with all details	
i)	Annexure - XI	Format of Details for Payment	
j)	Annexure - XII	Price confirmation copy: Copies of 'Schedule of Rate' (Part-A, B & C), keeping price blank (hiding the price) and in place indicating "Quoted" or "√", against each head, as a confirmation of price quoted, duly signed and stamped shall be submitted.	
k)	Annexure - XIII	Check List, duly filled in with all details	
l)	Annexure -XIV	Performa for Self Declaration on Bidder's Letterhead	

3.	Security Deposit: as per Clause.no.5 of Annexure-III of ITB	To confirm	
4.	Period of Contract: Two (02) Years from the Effective date. As per Clause of Annexure-III of ITB	To confirm	
5.	Validity of Offer: 90 days from Technical Bid Opening Date	To confirm	
6.	Copy of PAN card	To Submit	
7.	Whether the Company is registered as M S E (Micro & Small Enterprises) if 'Yes', indicate the registration No. and enclose a copy of Registration Certificate.	YES / NO.	
8.	Whether the M S E Company is owned by SC / ST	YES / NO.	
9.	Confirmation of Acceptance to all Terms and Conditions of the Tender Document in totality.	To confirm	
10.	Name, Designation, Telephone Nos. FAX No. and e-mail ID of contact person for this enquiry.		

It is confirmed that in case any of the terms and conditions mentioned in this summary are at variance with those indicated anywhere else in our offer; the condition indicated in his summary shall prevail.

Signature of Bidder: _____

Stamp: _____

(Self Declaration on Bidder's Letter Head as per below performa)

DECLARATION

To ,

Projects and Development India Ltd.

Noida – 201301

Subject : ITB No.Dt.

Sir ,

We hereby declare that M/s is neither put on Holiday or Black-listed by any Government / PSU / Private firm or Financial Institution .

Signature

Name :

Designation :

Seal of the Bidder.

**SECURITY CUM PERFORMANCE BANK GUARANTEE / SECURITY DEPOSIT
(STAMP PAPER TO BE PURCHASED ON NAME OF BANK)**

This guarantee made this _____ day of _____ (Year in four digits) between a company incorporated in (mention name of the Bank/ company) having its registered office at _____ (hereinafter called the "BANK" which expression shall unless repugnant to the context or contrary to the meaning thereof include its successors and assigns) of the one part; and M/s. _____ (Purchaser), a company incorporated in India under the Indian Companies Act 1956 and having its registered office at PDIL Bhawan , A-14 , Sector-1 , Noida – 201301, Dist. – Gautambudh Nagar (U.P) (hereinafter called the "PURCHASER" which expression shall include its successors and assigns) of the other part.

WHERE AS M/s _____ (Seller) a Company incorporated in _____ and having its Registered Office at _____ (hereinafter called the "COMPANY" which expression shall include its successor and assigns) have secured order Number _____ dt. _____ For supply/ supply-cum-erection of _____ at a total cost of _____ plus site supervision services on per diem rate basis as applicable from the PURCHASER / OWNER.

WHEREAS

1. It is one of the terms of the said order that the COMPANY shall furnish to the PURCHASER/OWNER a guarantee of a BANK which shall be for 10% of the value of the order and shall be valid for the duration of supply of the services covered by the said order and the period of defects liability in respect of the said services plus claim period of six months.
2. The BANK has at the request of the COMPANY agreed to give in favour of the PURCHASER a guarantee in manner hereinafter appearing which the PURCHASER has agreed to accept.

NOW THIS DEED WITNESSETH AS FOLLOWS:-

1. In pursuance of the said agreement and in consideration of the premises the BANK hereby unconditionally guarantees to the PURCHASER due observance and fulfillment by the COMPANY of the terms of the said order relating to the said equipment and of the performance warrantees which is a part of the said order and agrees and undertakes that if the COMPANY fails to observe and fulfil the said terms of the said order and/or the performance warrantees then the BANK shall immediately pay to the PURCHASER on demand such sum or sums of money to the extent of ` _____ being 10% of the value of the said order on account of losses and damages suffered by the PURCHASER as may be claimed by the PURCHASER by reason of such non-observance and non-fulfillment by the company as aforesaid and shall also indemnify the PURCHASER against all losses and damages which may be suffered by the PURCHASER aforesaid and against all costs, charges, expenses which may be incurred by the PURCHASER in connection herewith.
2. The BANK hereby agrees that the decision of the PURCHASER as to the failure on the part of the COMPANY to fulfil their obligations as aforesaid and/or as to the amount payable by the BANK to the PURCHASER hereunder shall be final, conclusive and binding on the BANK.
3. All compensations and payments received by the PURCHASER from Bank on behalf of the COMPANY shall be regarded as payments in gross and in the event of the COMPANY BEING wound-up, the PURCHASER will be entitled to prove against the properties of the COMPANY in respect of the whole of the COMPANY's indebtedness to the PURCHASER without any right on the part

of the BANK to stand in the PURCHASER's place in respect of or to claim the benefits of such imposition and payment or any security held by the PURCHASER until the PURCHASER shall have received the full amount of the PURCHASER's claims against the COMPANY.

4. This guarantee shall be in addition to and shall not affect or be affected by any other security now or hereafter held by the PURCHASER on account of the moneys hereby intended to be secured and the PURCHASER at its discretion and without any further consent from the BANK and without affecting the liability of the BANK and the rights of the PURCHASER against the BANK may be compound within given time or other indulgence to or make any other arrangement with the COMPANY and nothing done or omitted to be done by the PURCHASER in pursuance of any authority or permission contained in the guarantee shall affect or discharge the liability of the BANK.
5. Though as between the COMPANY and the BANK, the BANK is SURETY only, the BANK agrees that as between the PURCHASER and the BANK, the BANK is principal debtor to the PURCHASER.
6. This guarantee shall not be affected by any change in the constitution of the BANK or the COMPANY nor shall this guarantee be affected by any change in the constitution of the PURCHASER or any amalgamation or absorption with any other body corporated and this guarantee will be available to or enforceable by such body corporate.
7. The guarantee shall be continuing guarantee and continue to be in force notwithstanding the discharge of the COMPANY by operation of law and shall cease only on payment in full to the PURCHASER by the BANK of the amount hereby guaranteed and on the claim of the PURCHASER against the COMPANY on any account whatsoever being satisfied.
8. In order to give full effect to the provisions of this guarantee the PURCHASER will be entitled to act as if the BANK were the principal debtor to the PURCHASER and the BANK hereby waives all or any of its rights as surety.
9. This guarantee is irrevocable except with the written consent of the PURCHASER.
10. This guarantee shall remain valid up to _____.
11. Any notice by way of request demand or otherwise hereunder may be sent by post to the BANK addressed as aforesaid and if sent by post it shall be deemed to have been given at the time when it would be delivered in due course of post and in proving such notice when given by post it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the PURCHASER that the envelope so posted shall be conclusive.
12. These presents shall be governed by and construed in accordance with Indian Law.
13. Notwithstanding anything stated above, the BANK's liability to the PURCHASER under this guarantee shall be limited to _____ and the guarantee will remain valid up to _____ provided that unless a claim under this guarantee is made by the PURCHASER against the BANK within three (03) months of the said date of expiry of this guarantee, the claim shall be forfeited and the BANK shall be relieved and discharged from all liabilities under this guarantee.

IN WITNESS whereof the BANK has hereunto affixed its common seal the day and year first above written.

THE COMMON SEAL OF THE ABOVE NAMED BANK has hereunto been affixed in the presence of