



Mob. No: - 9835486288

Sitting Place:-:

Room No. 9, D.B.A. Civil Court, Patna Residence:- Kumar Kunj, Sri Ram Path, New Jakkanpur, Patna -800001

Ref:-

Date: 17-8-2022

23/08/20 23/108/20 23/108/20 23/108/20

To,

The Public Information officer
Cum Chairman Cum M.D.
Power Grid Corporation of India Ltd.
Saudamini, Plot No. 02, Sector -29
Gurgaon-122001 (Haryana)

Sub:- For Supply of information under RTI Act, 2005. Sir,

With due respect I am referring herewith matter of the purposes as follows:-

- 1. On 24.01.2007 Power Grid Corporation India Ltd. awarded a work for supply of equipment and materials for construction of a new work on behalf of BSEB under APDRA Scheme for PESU (West), Circle of Bihar Under APDRA Phase-II this work was to be executed at Patna and is having work order No. C-45249L968-3/LOA-1/2287 dated 24.01.2007 (Enclosed photocopy of the work order).
- Separate contracts were executed for supply and crection of the work.

ER-I



In these matter confirmed information under RTI Act are required on the points below:-

- 1. Whether the work was fully completed and commissioned?
- 2. If the work was not completed by the contractor as per the terms of the contract and the supply of equipment & materials for which payment was taken, were not erected, what action was taken by the purchaser (i.e. Power Grid Corporation India Ltd./BSEB)?

I therefore, request you kindly to give and supply information along with certified copies of papers thereof pertaining to both points above at your earliest convenience and oblige.

A Postal order No.56F857856 of Rs. 10/- on account of feel for obtaining those informations is enclosed herewith.

Yours Sincerely

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Enclosure:-

Postal order referred above.



पावर ग्रिंड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



केन्द्रीय कार्यालयः "संदामिनी" प्लॉट सं २. सैवटर-२९, गुङ्गॉब-१२२००१, हर्ने

फोन : 2571700 - 719. फंक्स : 2571760. 2571761 तार 'नेट्रा Corporate Office: "Saudamini" Plot No. 2, Sector-29, Gurgaon 122 001 Harvail

Tel.: 2571700 - 719, Fax: 2571760, 2571761 Gram: NATGR)

संदर्भ संख्या/Ref. Number

Ref. No: C-45249-L968-3/LOA-I/2287

Date: 24.01.2007

To.

M/s Subhash Projects And Marketing Limited,

22 Camac Street, Block-A,

3rd Floor, Kolkata-700017,

West Bengal

Tel: 033-40091234

Fax: 033-40091303/1301

Kind Attention: Mr. Ajit Mukhopadhyay, General Manager (Business Development)

Subject: Notification/Letter of Award (LOA) for supply of equipment & materials for Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in

PESU(West) circle of Bihar under APDRP Phase-II. Specification No.: C-45249-L968-3: Funding-Domestic

(SUPPLY CONTRACT)

Dear Sir.

1.0 Power Grid Corporation of India Ltd. (A Govt. of India Enterprises) with its registered office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 (hereinafter to be referred as "POWERGRID" or 'Employer') has been entrusted by Bihar State Electricity Board (BSEB) to undertake Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circles under APDRP Phase-II.

1.1 REFERENCE

This has reference to the following:

- 1.1.1 Invitation to Bids (INV) dated 18th September, 2006 and corrigendum to NIT dated 21.09.2006 for the subject package.
- Bidding Documents against Specification No.: C-45249-L968-3 issued to you vide our 1.1.2 letter no. C/CS-DMS/APDRP/ PESU Dated 04.10.2006 consisting of the following:
 - i) Conditions of Contract (Doc. Code No. DC-5001-JAN-2003-REV-0)

(along with Amendment No.- I to IX)

ii) Special Conditions of Contract

Vol.-IA (Doc. Code No. DC-45249-9196)

iii) Bid Proposal Sheets (Doc. Code No. DC-45249-9197)

Vol.-IB

iv) Technical Specification (Doc. Code No. DC-45249-9198)

Vol.-II

v) Technical Data Sheets

Vol.-III

(Doc. Code No. DC-45249-9199)

कृत कार्यालय : बी-९, कुतब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-११००१६ दूरभाष : २६५६०१२१ फेंक्स : ०११-२६५६००३९ तार 'नेटग्रिड' stered Office: B-9 Out ab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel.: 26560121 Fax 011-26560039 Gram NATGRID

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation





Power Grid Corporation of India Ltd. Saudamini, Plot No. 02, Sector 29 Gurgaon 122001 (Haryana)

Kind Attn. Mr. M. K. Singh Chief Manager (CS)

0206:Q-1526:AM

29th January 2007

Dear Sirs,

Sub: Tender for Construction of New Line (33KV, 11KV and LT) and U/G Cable (33KV, 11KV, and LT), New 33/11KV S/S and Revamping of Existing 33/11KV S/S in PESU (West) Circle of BSEB on Turnkey basisunder APDRP Phase - II

Most thankfully, we acknowledge receipt of the under noted LOAs and hereby convey our acceptance to the same.

C-45249-L968-3/LOA-I/2287 dated 24.1.07 (Supply) C-45249-L968-3/LOA-II/2288 dated 24.1.07 (Freight, Insurance and Erection))

We have retained the original and are returning herewith the duplicate duly signed and stamped as a token of our acceptance.

.Thanking you,

Yours faithfully

For SUBHASH PROJECTS AND MARKETING LIMITED

AJIT MUKHOPADHYA

GENERAL MANAGER - BUSINESS DEVELOPMENT

JUBHASH PROJECTS AND MARKETING LIMITED

22, Camac Street, Block - A, 3rd Floor, Kolkata - 700 017 el: 91-033-40091234, Fax: 91-33-40091303/40091301 mail: info@kol.spml.co.in Website: www.spml.co.in

ægd. Office : F-27/2, Okhla Industrial Area, Phase II, New Delhi 110 020





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- 1.1.2.1 Errata No. I & Clarification No.-I to the Bidding Documents issued to you vide our letter ref. no. CC/CS-DMS/PESU(West)/Errata & Clarification dated 26.10.2006 and Clarification No.-II to the Bidding Documents issued to you vide our letter ref. no. CC/CS-DMS/PESU(West)/ Clarification No.-II dated 02.11.2006.
- 1.1.3 Bid submitted by you for the subject package under proposal reference no 0206/CS/PD/Q:1526/AM/2118 dtd. 24.10.2006 (Bid opened on 10.11.2006) and Clarification submitted by you vide letter ref. No. 0206/Q-1526/AM dtd. 14.12.2006.
- 1.1.4 Record Notes of Post-bid discussions held between POWERGRID and you from 22.01.2007 to 23.01.2007, enclosed as Annexure-I to this LOA. (These record notes of Post Bid discussion shall be read and construed as integral part of this Letter of Award.)
- 2.0 Under this Letter of Award, "Owner" shall mean 'Bihar State Electricity Board (BSEB)' and shall include their legal representatives, successors and assigns. 'Employer'/ 'POWERGRID'/ 'Consultant' shall mean Power Grid Corporation of India Limited, New Delhi and shall include their legal representatives, successors and assigns.
 - For the purpose of execution of the Contract, the contractual activities on the part of the 'Owner', wherever context requires so, shall be performed by POWERGRID "for and on behalf of BSEB" except in cases where BSEB itself is statutorily required to do so.
- 2.1 Wherever reference to POWERGRID is made in the Bidding Documents, Letter of Award or any other related papers/documents, it shall be deemed to be "for and on behalf of BSEB."

3.0 AWARD OF CONTRACT AND ITS SCOPE

- 3.1 We confirm having accepted your bid (referred to at para 1.1.3 above), read in conjunction with the specifications, terms & conditions of the Bidding Documents and its amendments/errata/clarification (referred to at para 1.1.2 & 1.1.2.1 above) and the agreed deviations/specific confirmations as per the record notes of post bid discussions (referred to at para 1.1.4 above) and award on you a 'Contract' (hereinafter referred to as the 'First Contract' or 'Supply Contract') for ex-works supply of all equipment and materials for Construction of New Line(33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circles under APDRP Phase-II as set forth in the Bidding Documents referred to at para 1.1.2 &1.1.2.1 above.
- 3.2 The detailed scope of work under the contract has been defined in the Technical Specification (Vol-II). The brief scope of work covered under the Contract, interalia, includes the following:

Design, engineering, manufacture, testing, supply of specified equipment and materials, as set forth in the Bidding documents referred to at para 1.1.2 above, on ex-works basis for execution of Construction of New Line (33kV, 11kV and LT) and Underground cable (33kV, 11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S

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in PESU(West) circle of Bihar under APDRP Phase-II. The list of equipment/materials to be supplied by you under this Contract is given at enclosed Annexure-II of this Letter of Award.

- 3.3 The scope of work under this Contract shall also include all such items, equipment and materials which are not specifically mentioned in the Bidding Documents, and/or your bid but are necessary for the successful completion of the scope of work under the Contract for Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circle of Bihar under APDRP Phase-II, as detailed in the Bidding Documents unless otherwise specifically excluded in the Bidding Documents and its subsequent clarifications/amendments/errata, if any, or in this Letter of Award including its Annexures.
- 3.4 This Letter of Award (LOA) is subject to the terms & conditions detailed hereunder:
 - The work under this LOA shall be performed by you strictly in line with the bidding documents referred to at para 1.1.2 above & all its clarifications/amendments/errata referred to at para 1.1.2.1 above, except as specifically amended / modified in this LOA and/or in the Record Notes of Post-bid discussions referred to at para 1.1.4 above. All other deviations and/or additional conditions, implicit or explicit, contained in your Bid referred to at para 1.1.3 above and your subsequent communications, if any, shall stand withdrawn without any cost implication to POWERGRID, in so far as they are repugnant to what has been stated in this Letter of Award and/or bidding documents and its subsequent amendment/errata/clarification.
 - ii) You shall submit the Guaranteed Technical Particulars (GTP) of the equipment/materials, in line with the Bidding Documents, during detailed engineering for the approval of POWERGRID.
 - Another Contract has been awarded to you vide our Notification/ Letter of Award No. C-45249-L968-3/LOA-II/2288 dated 24.01.2007 (hereinafter called the 'Second Contract' or the 'Erection Contract') for the subject package, under which the scope of work includes performance of all other activities such as inland transportation to final destination at site and insurance, taking delivery, unloading, handling and storing of all equipment and materials (to be supplied by you under this 'First Contract'); installation of equipment, erection including associated civil works, testing and commissioning of all equipment and materials under the subject package for Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circle of Bihar under APDRP Phase-II as set forth in the Bidding Documents referred to in clause 1.1.2 &1.1.2.1 above.

You shall be fully responsible for the work to be executed under the "Second Contract" and it is expressly understood by you that any breach under the







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"Second Contract" shall automatically be deemed as a breach of this Contract and any such breach or occurrence giving us a right to terminate the "Second Contract" and/or recover damages under that Contract shall give us a right to terminate this Contract and/or recover damages under this Contract as well. However, such breach or occurrence in the "Second Contract" shall not automatically relieve you of any of your obligations under this Contract. It is expressly understood and agreed by you that the equipment/materials supplied by you under this Contract, when transported to site, erected and commissioned under the "Second Contract", shall give satisfactory performance in accordance with the Bidding Documents and/or this LOA.

The title of Goods in respect of equipment/materials to be supplied by you to the Owner shall pass on to the Owner on Ex-works dispatch from your/your subvendor's works with negotiation of dispatch documents. This transfer of title shall, however, not relieve you from your liabilities and responsibility of all risks, loss or damage to the equipment & materials as specified in the Bidding Documents. Further, this transfer of title shall not be construed as "Taking Over" of equipment and materials. You shall continue to be responsible for the quality and performance of the equipment and materials, for their compliance with the specification until "Taking Over" and the fulfillment of guarantee/warranty provisions under the Supply and Erection Contracts.

4.0 CONTRACT PRICE

4.1 We agree to pay you a total sum of Rs. 739,264,222/- (Rupees Seven Hundred Thirty Nine Million Two Hundred Sixty Four Thousand Two Hundred Twenty Two only) as the Contract Price for the entire scope of work under this Contract.

Detailed break-up of above contract price for the purpose of on account payment is given at Annexure-II (Price Break-up of Ex-works Price Component) to this Letter of Award.

4.2 Notwithstanding the break-up of the Contract price, the Contract shall, at all times, be construed as a single source responsibility Contract and any breach in any part of this Contract shall be treated as a breach of the entire Contract.

5.0 TAXES AND DUTIES

5.1 Taxes & Duties under the subject Contract shall be governed by the provisions of Clause 6.0, Special Conditions of Contract, Vol.-IA of the Bidding Documents & Commercial issues of Record Notes of Post Bid Discussions enclosed at Annexure-I to this LOA.

The Contract price indicated above is inclusive of Excise Duty, Sales Tax and service tax but is exclusive of applicable Octroi/Entry tax. Applicable Octroi/entry tax, shall be







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additionally payable by POWERGRID against documentary evidence in line with the provisions of bidding documents.

6.0 PRICE ADJUSTMENT

- 6.1 The ex-works prices of ACSR Conductor shall be subject to price adjustment during the performance of the contract in accordance with Clause 5.0, Special Conditions of Contract, Volume-IA of the Bidding Documents and as per the formulae given at Annexure-III.
- 6.2 The unit Ex-works price component of all other equipment/items not specifically mentioned in Annexure-III to this LOA, shall remain firm and no price adjustment, whatsoever, shall be applicable for the same.
- 6.3 For the purpose of price variation calculations on Ex-works price components of the equipment, the date of shipment shall mean scheduled date of shipment or actual date of shipment, whichever is earlier. Scheduled date of shipment will be Ex-works date of dispatch, governed by the accepted PERT Network/Bar Chart. No price increase shall be allowed beyond the original delivery dates unless specifically stated in the time extension letter, if any, issued by POWERGRID. POWERGRID will, however, be entitled to any decrease in the Contract price which may be caused due to lower price adjustment amount in case of delivery of goods beyond the original delivery dates. Therefore, in case of delivery of goods beyond the original delivery dates, the liability of POWERGRID shall be limited to lower of the price adjustment amount which may work out either on schedule date or actual date of dispatch of goods.

7.0 TERMS OF PAYMENT

The payment under the Contract shall be made as per Clause 9.0, Terms of Payment, Special Conditions of Contract, Vol.-IA of the Bidding Documents and as brought out below:

- 7.1 Payment of Ex-works price components of the equipment & materials:
- 7.1.1 (i)Interest Bearing Initial Advance (Optional*): Ten percent (10%) of the Ex-works price component of the equipment/ materials of the Contract price i.e., Rs. 73,926,422/(Rupees Seventy Three Million Nine Hundred Twenty Six Thousand Four Hundred Twenty Two only) shall be paid as an interest bearing initial advance on presentation of the following:
 - a) Your unconditional acknowledgement of this Letter of Award and LOA for the Second Contract,
 - b) Your detailed invoice (3 copies) for interest bearing advance payment,

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- c) An unconditional & irrevocable Bank Guarantee from a bank, the acceptability of which has been specified in the Bidding Documents, in favour of POWERGRID for the equivalent amount of interest bearing initial advance in accordance with the provisions of clause 34.7.1(i)(b), Section-GCC, and as per proforma attached with Section-Annex, Conditions of Contract, Vol.-I of the Bidding Documents, initially valid upto 30.04.2008 and shall be extended from time to time till ninety (90) days after the actual date of successful completion of commissioning, as may be required under the Contract,
- d) An unconditional & irrevocable Bank Guarantee towards Contract Performance Guarantee as per para 13.0 of this Letter of Award,
- e) An unconditional & irrevocable Bank Guarantee towards Contract Performance Guarantee against Letter of Award ref. No. C-45249-L968-3/LOA-II/2288 dated 24.01.2007 and
- f) Detailed PERT Network/Bar Chart based on the work schedule stipulated in this Letter of Award, and its approval by POWERGRID.
- * This payment is an optional payment. You have the option of taking the interest bearing advance or otherwise.

In case, you opt for this interest bearing advance, the same shall be paid to you on fulfillment of above conditions and in line with Clause No. 34.7.1 (iii) of GCC, and an interest on monthly outstanding amount will be charged at the rate of 6.52% per annum. The monthly outstanding amount for the purpose of calculating the interest shall be worked out at the end of each calendar month considering proportionate adjustment of advance against dispatch payment as per 7.1.2 below.

In case, you opt not to take interest bearing advance as above, it would be mandatory for you to submit the document listed at Sl. No (a), (d), (e) and (f) above within thirty (30) days of issuance of LOA.

- (ii) Interest Bearing Interim Advance (Optional**): Further advance of ten percent (10%) of the Ex-works price component of the equipment/ materials i.e., Rs. 73,926,422/- (Rupees Seventy Three Million Nine Hundred Twenty Six Thousand Four Hundred Twenty Two only) shall be paid as an interest bearing interim advance on presentation of the following:
 - a) Approval of all design, drawing & guaranteed technical particulars as identified in Technical Specifications, Vol.-II of the Bidding documents.
 - b) Approval of all quantity plans and sub-vendor list.
 - c) Approval of type test reports in case type tests are not required to be repeated.

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- d) Submission of an unconditional & irrevocable Bank Guarantee in favour of POWERGRID for an equivalent amount of interim advance in accordance with the provisions of Clause 34.7.1 (i) (b) ,section-GCC and as per the proforma attached with Section-Annex, Condition of Contract, Vol.-I of the Bidding documents. The said Bank guarantee shall be initially valid upto the end of ninety (90) days after the schedule date for successful completion of commissioning i.e. 30.04.2008 and shall be extended from time to time till ninety (90) days beyond the actual date of successful completion of commissioning, as may be required under the Contract.
- ** This payment is an optional payment. You have the option of taking the interest bearing advance or otherwise.

In case, you opt for this interest bearing advance, the same shall be paid to you on fulfillment of above conditions and in line with Clause No. 34.7.1 (iii) of GCC, and an interest on monthly outstanding amount will be charged at the rate of 6.52% per annum. The monthly outstanding amount for the purpose of calculating the interest shall be worked out at the end of each calendar month considering proportionate adjustment of advance against dispatch payment as per 7.1.2 below.

In case, you opt not to take interest bearing advance as above, it would be mandatory for you to submit the document listed at Sl. No (a), (b), and (c) above within thirty (30) days of issuance of LOA.

- 7.1.2 On shipment: Payment of the Ex-works price of main equipment/materials for each consignment shall be made progressively on certification of the Engineer and on the basis of work performed using the following guidelines
 - (A) Fifty percent (50%) # of the Ex-works price of main equipment/ materials shall be paid on presentation of:
 - a) Evidence of despatch (R/R or receipted L/R).
 - b) Contractor's detailed invoice & packing list identifying contents of each consignment.
 - c) Manufacturer's/Contractor's guarantee certificate of quality.
 - d) Insurance Policy/Certificate.
 - e) Material Inspection Clearance Certificate (MICC) for despatch issued by POWERGRID's representative.

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- f) Test Certificate.
- # In case, the Contractor opts not to take interest bearing initial advance and interest bearing interim advance then this payment shall be 70% instead of 50%. Further, in case, the Contractor opts not to take either interest bearing initial advance or interest bearing interim advance then this payment shall be 60% instead of 50%.
- (B) Twenty percent (20%) of the Ex-works price of main equipment materials shall be paid on receipt and storage at site and on physical verification and furnishing of necessary certificate by Engineer.
- 7.1.3 Final Payment: Balance ten percent (10%) of the Ex-works price of main equipment/ materials shall be paid on
 - a) Successful completion of erection, testing and commissioning of Underground cable/Substation/Line bays/Lines/DTs and issuance of Taking Over Certificate.
 - b) Proof of submission of required number of reproducible, O&M Manuals, approved drawings, data sheets, test report, pamphlets and manuals of mandatory spares, maintenance & testing equipment, if any.
- 7.1.4 "Commissioning" for the purpose of payments shall mean satisfactory completion of all supplies, erection, commissioning checks and successful completion of all site tests and continuous energisation of the equipment/materials at rated voltage as per the Contract and to the satisfaction/approval of POWERGRID.
- 7.1.5 Payment of Taxes & Duties
- 7.1.5.1 Taxes & Duties, as payable as per provisions of bidding documents and as incorporated in the contract, will be paid/re-imbursed directly to you by POWERGRID (for and on behalf of BSEB) as per contract after receipt of goods at destination site against documentary evidence.
- 7.15.2 The recovery of TDS under the various tax laws related to this work shall be done by POWERGRID for and on behalf of BSEB. TDS so deducted shall be deposited with the relevant tax authorities & TDS certificate shall be issued by POWERGRID for and on behalf of BSEB using their permanent A/C no. and TDS account number. Relevant challans and copies of TDS certificates shall be forwarded to BSEB for filing the necessary returns.







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7.1.6 Payment towards Price Adjustment

- 7.1.6.1 Any variation in Contract price due to Price Adjustment provisions, stipulated at para 6.0 hereinabove, shall be effected on presentation of invoice supported by calculations with documentary support of indices as per formulae specified at *Annexure-III*.
- 7.1.6.2 Any increase in Contract price due to Price Adjustment provision shall be payable as follows:
 - i) 90% (Ninety percent) of the price adjustment amount for the respective equipment shall be paid after receipt of the said equipment at the site.
 - ii) Balance 10% (Ten percent) of the price adjustment amount shall be paid alongwith the final payment as per clause 7.1.3 above.
- 7.1.6.3 Any reduction in Contract Price due to Price Adjustment provision shall be effected by recovering 100% of the reduction amount from any of your bills falling immediately due for payment or any other payments.

7.2 Mode of Payment

- 7.2.1 All payments against this contract shall be made by POWERGRID under suitable arrangement with BSEB/Govt. of Bihar.
- 7.2.2 All the payments under this Contract shall be made by POWERGRID (for and on behalf of BSEB) directly to you within thirty (30) days of receipt of your invoice, complete in all respects and supported by the requisite Documents and fulfillment of stipulated conditions.
- 7.2.3 All invoices under the Contract shall be raised by you on "Bihar Sate Electricity Board (BSEB)-acting through Power Grid Corporation of India Limited" and submitted to POWERGRID for payment. Payment shall be made to you by POWERGRID for and on behalf of BSEB.
- 7.2.4 POWERGRID shall arrange issuance of payment certificate wherever required, from BSEB.

8.0 QUANTITY VARIATION

Quantity variation under the Contract shall be governed by the provisions of Clause 24.0, Section-GCC, Conditions of Contract, Vol.-I and Clause 11.0, of Special Conditions of Contract, Vol.-IA of the Bidding Documents.

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9.0 INSURANCE

The provision of insurance under the Contract shall be as per Clause 17.0, Special Conditions of Contract, Vol.-IA of the Bidding Documents and as per the following:

- 9.1 All the equipment and materials including spares, if any, being supplied by you shall be kept completely insured by you at your cost from the time of dispatch from your works/sub-vendor's works, upto the completion of erection, testing & commissioning at site and taking over of the Underground Cable/Sub-station/ Line/DTs by POWERGRID (for and on behalf of BSEB) in accordance with the Bidding Documents.
- 9.2 Further, all the equipment and materials including spare, if any, being supplied by POWERGRID/BSEB for erection, testing and commissioning(as per Technical Specification) shall be kept insured by the Contractor against any loss, damage, pilferage, theft, fire etc. from the point of commencement of unloading upto the time of taking over by POWERGRID including handling, transportation, storage, erection, testing and commissioning etc. The premium paid to the Insurance company by you for such insurance shall be reimbursed by POWERGRID (for and on behalf of BSEB) to you at actuals against documentary evidence to be furnished to you. You shall obtain competitive quotations for such insurance and shall take prior approval from the POWERGRID before taking the insurance. The insurable value of the equipment being supplied by POWERGRID/BSEB, if any, shall be intimated to you for arranging the insurance.
- 9.3 It will be your responsibility to lodge, pursue and settle all claims with the insurance company for all equipment / materials in case of any damage, loss, theft, pilferage or fire during execution of Contract and POWERGRID shall be kept informed about it. You shall be responsible for the replacement of the lost/damaged materials promptly irrespective of the settlement of the claims by the underwriters and you shall ensure that the work progress is as per the agreed schedule. The losses, if any, in such replacement shall be to your account.
- 9.4 The insurance covers to be taken by you shall be in the joint name of POWERGRID and you. You shall, however, be authorized to deal directly with insurance company(ies) and shall be responsible in regard to maintenance of all insurance covers.

10.0 WORK SCHEDULE

- 10.1 The basic consideration and essence of the Contract is the strict adherence to the Work Schedule. The work under this Contract shall be performed in such a manner so as to meet the schedule and the key dates identified in Annexure-IV to this Letter of Award.
- 10.2 The time for successful completion of Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circle of Bihar under APDRP Phase-II as per the bidding documents is 12 (Twelve) months from the date of this Letter of Award i.e., upto and inclusive of 23.01.2008.







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- 10.3 You shall develop and furnish a detailed work schedule in the form of Master Network/Bar-chart indicating various activities to be performed under the Contract based on dates identified in Annexure-IV to this LOA, within 30 days from the date of this LOA. The above Master Network/ Bar Chart after approval will form part of Contract Agreement.
- 10.4 For the purpose of levy of liquidated damages for delay as per para 11.0 below, 24.01:2008 shall be the date from which liquidated damages for delay shall be applicable.

11.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION

- II.1 If you fail to perform the works, with respect to successful completion of testing and commissioning of the Underground cable/Sub-stations/Line bays/ line/Distribution Transformers under the Contract, within the period specified in clause 10.0 above or any extension granted thereof, then you shall pay to POWERGRID, a sum equivalent to one half of one percent (0.5%) of the respective Contract price as liquidated damage for such default and not as a penalty, without prejudice to other remedies of POWERGRID (for and on behalf of BSEB) under the Contract, for each calendar week of delay or part thereof. However, the total amount of liquidated damages for delay under the Contract shall be limited to a maximum of five (5) percent of the total Contract Price.
- 11.2 POWERGRID may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to you. The payment or deduction of such damages shall not relieve you from your obligation to complete the works, or from any of your other obligations and liabilities under the Contract.
- 11.3 In addition to the above, LD for delay as applicable under "Second Contract" shall also be recoverable from you. Both these LD will run concurrently.
- 12.0 Functional Guarantee/Liquidated Damages for Non-Performance (applicable for Power Transformer/Distribution Transformers).
- 12.1 In the event of any deficiencies in meeting the guarantees in respect of characteristics mentioned below as established after conducting the factory test, POWERGRID, in line with the provisions of Clause 15.0, Special Conditions of Contract, Vol.-IA of the Bidding Documents, may at its discretion, reject or accept the equipment after assessing the liquidated damages for non-performance at the rates mentioned below and such amounts shall be deducted from the Contract Price or otherwise recovered from you.

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SI. No.	Equipment	Guaranteed losses (in KW) at rated frequency, current and voltage		Rate at which LD is to be worked out (Rs. per KW)	
	*	Copper Loss	Iron Loss	For Copper Loss	For Iron Loss
1.	33/11 kV, 5 MVA, 3 Phase Power Transformer	31	5	41,222	1,37,408
2.	11/0.433 kV, 400 KVA, 3 Phase Distribution Transformer	4.4	0.72)	
3. •	11/0.433 kV, 200 KVA, 3 Phase Distribution Transformer	3.3	0.57	20,428	98,208
4.	11/0.433·kV, 100 KVA, 3 Phase Distribution Transformer	1.575	0.22	J.	

12.2 The amount of liquidated damages so recoverable shall be without any ceiling and shall not prejudice your other liabilities under the Contract in any manner. The liquidated damages for shortfall in guaranteed parameters and for delay in completion are independent of each other and shall be levied separately and concurrently.

13.0 CONTRACT PERFORMANCE GUARANTEE

- 13.1 You shall furnish an unconditional and irrevocable Bank Guarantee from a bank, the acceptability of which has been specified in the Bidding Documents, in favour of POWERGRID for an amount of Rs. 73,926,422/- (Rupees Seventy Three Million Nine Hundred Twenty Six Thousand Four Hundred Twenty Two only) i.e., equal to ten percent (10%) of total Contract Price, towards Contract Performance Guarantee within thirty (30) days from the date of this Letter of Award as per Clause 43.0, Sec.-INB, Conditions of Contract, Vol.-I and as per proforma enclosed at Annexure-II, Section-Annex, Vol.-I of the Bidding Documents. The above Contract Performance Guarantee shall be kept valid until the expiry of ninety (90) days after the end of warranty period i.e., valid initially upto and including 30.04.2009 and shall be extended from time to time until expiry of ninety (90) days beyond the actual completion of warranty period, as may be required under the Contract.
- 13.2 You shall keep the Bid Guarantee valid till the Contract Performance Guarantee submitted by you is accepted by POWERGRID.

14.0 QUALITY ASSURANCE & INSPECTION

14.1 All the Quality assurance & Inspection matters pertaining to this Contract shall be dealt as per the Bidding Documents and in accordance with the Record Notes of Post-bid Discussions, enclosed herewith as Annexure-I.







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15.0 PROGRESS REPORT

- 15.1 You shall submit monthly progress report on the status of the following activities as on last day of each calculate month so as to reach us by 10th of the succeeding month.
 - i) Engineering Drawings
 - ii) Procurement of raw materials and bought-out items
 - iii) Manufacturing
 - iv) Teaming & Inspection
 - v) works Despatch of equipment/materials
 - Payment received

These progress reports shall be submitted in five (5) copies and shall be distributed by you as follows:

- i) I copy to DMS Deptt. at Corporate center, Gurgaon.
- ii) 1 copy to Corporate Monitoring Group at Corporate center, Gurgaon.
- iii) 1 copy to Quality Assurance Deptt. at Corporate centre, Gurgaon.
- iv) I copy to Regional Head Quarter (ERTS-I), Patna
- v) I copy to Site office

16.0 PROJECT ORGANISATION AND CO-ORDINATION

- 16.1 You shall nominate the co-ordinators for each of the following functions under this Contract within 15 days from the date of issue of this Letter of Award:
 - Project Engineering.
 - ii) Procurement/manufacturing activities.
 - iii) Quality Assurance and Inspections.
 - iv) Contract operation including schedules.

Alternative co-ordinators shall also be nominated to facilitate uninterrupted working.

17.0 CORRESPONDENCE PROCEDURE

17.1 For the purpose of correspondences, the address of various departments and offices and the procedure for correspondence are given at Annexure-V.

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Page 14 of 14

18.0 CONTRACT AGREEMENT

- 18.1 Notwithstanding anything stated elsewhere in the Bidding Documents, this Letter of Award will constitute the formation of the Contract which will be effective from the date of this Notification/Letter of Award.
- 18.2 You shall enter into a formal Contract Agreement with us within sixty (60) days of issuance of this Letter of Award. Contract Agreement shall Let prepared by and completed at your cost in the form provided in Bidding Documents.
- 19.0 SETTLEMENT OF DISPUTES AND ARBITRATION
- 19.1 All the differences or disputes arising out of this Contract shall be settled through the process of "Settlement of Disputes" and "Arbitration" as per Clause 48.0 & Clause 49.0, Section-GCC, Conditions of Contract, Vol.-I of the Bidding Documents. The provisions of Arbitration & Reconciliation Act, 1996 as amended from time to time, shall apply.
- 19.2 The Delhi Courts alone shall have the exclusive jurisdiction in all matters arising out of this Contract. The arbitrator shall give reasoned award.
- 20.0 This Notification/Letter of Award is being issued to you in duplicate. We now request you to return the duplicate copy duly signed and stamped on each page including all the enclosed Annexures, within fifteen (15) days from the date of this Letter of Award as a token of your acknowledgement.
- 21.0 We thank you for the interest shown by you in the project so far and look forward to receive your continued co-operation.

Please take necessary action to commence the work immediately and confirm.

Thanking you,

Yours faithfully,

(M. Kl Singh) Chief Manager (CS)

ENCL:

1. Annexure-I Record Notes of Post-bid Discussions

2. Annexure-II Price Break-up of Ex-works Price Component.

3. Annexure-III Price variation schedule

4. Annexure-IV Work Completion Schedule.

5. Annexure-V Correspondence Procedure along with the List of Addresses.

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RECORD NOTES/MINUTES OF POST BID DISCUSSIONS HELD ON 22/01/2007 23/01/2007 BETWEEN POWERGRID AND M/S SUBHASH PROJECTS AND MARKETING LIMITED., KOLKATA (SPML) IN THE OFFICE OF POWERGRID AT GURGAON IN RESPECT OF SPML'S PROPOSAL FOR CONSTRUCTION OF NEW LINE (33KV,11KV AND LT) AND UNDERGROUND CABLE (33KV,11KV AND LT), NEW 33/11KV S/S & REVAMPING OF EXISTING 33/11 KV S/S IN PESU(WEST) CIRCLE OF BIHAR UNDER APDRP PHASE-II

Specification No.: C-45249-L968-3

PRESENTS

POWERGRID

- 1. Mr. B. K. Gupta, GM (CS)
- 2. Mr. V.C. Jagannathan, AGM (Fill.)
- 3. Mr. K. R. Suri, AGM (DMS)
- 4. Mr. Sudhir Mittal, AGM(CMG)
- 5 Mr. Y.S. Prasad, DGM(Fin.)
- 6. Mr. P. Pratap Kumar, DGM (CS)
- 7. Mr. R.K.Bansal, DGM(DMS), Patna
- 8. Mr. T.C Gupta, DGM(DMS)
- 9. Mr. J K Parihar, DGM (QA&I)
- 10. Mr. A K Sharma, , DGM (QA&I)
- 11. Mr. S. Das, Ch. Manager (QA&I)
- 12. Ms Pratyaksha, Ch. Mgr. (Fin.)
- 13. Mr. R.Ranjan, Ch. Manger(DMS)
- 14. Mr. M. K. Singh, Ch. Mgr. (CS)

SPML

- I. Mr. Ajit Mukhopadhyay
- General Manager (Business Development)
- 2. Mr. B.K. Das, Asst. Manager(BD)

A. **TECHNICAL ISSUES:**

- SPML confirmed that percentage impedance of 400kVA and 200kVA, 11/0.433 kV 1.0 transformer will be 4% as per technical specification.
- POWERGRID clarified that all cable erection/installation activities shall be covered 2.0 under SI No B3.2 of Schedule-4 of BPS, except end termination and straight through joints which are covered under SI no B3.3 and SI no B3.4 of Schedule-4 of BPS respectively.
- POWERGRID clarified that all cable erection/installation activities shall be covered 3.0 under SI No C1.1 of Schedule-4 of BPS, except end termination and straight through joints which are covered under SI no C1.2, and SI no C1.3 of Schedule-4 of BPS respectively.
- 4.0 SPML confirmed that 150W HPSV lamps has been offered in place of 125 W HPSV without any extra financial liability to POWERGRID.
- SPML confirmed that the duty cycle for 33 & 11kV VCB will be 0.3 sec-CO-3 min-CO as per the technical specifications.

Record Notes of Post Bid Discussion for APDRP works in PESU(West) Circles of BSEB

Page 1 of 3

- 6.0 SPML confirmed that the secondary current rating of HkV CT of indoor panels shalf be 5-5 Amp as per TS.
- 7.0 SPML confirmed that the voltage and current of station transformer shall be 11kV and 5.25 A as per TS.
- S.0 SPML confirmed that the Minimum Creepage distance shall be 320 mm for each disk of both 11kV & 33kV Disk insulators as per TS.
- 9.0 List of Vendors/sub-vendors for QR items, drawings/documents submission schedule and list of drawings/documents as agreed for claiming interim advance are enclosed at Annexure-I A, I B & I C respectively.
- 10.0 SPML also submitted the material planning for the entire scope of the work for the subject package as enclosed at Annexure-1 D.

B. QUALITY ISSUES

B1.0 The agreed Record notes of discussion in respect of quality matters are enclosed at Annexure-II to this MOM.

C. WORK SCHEDULE

C1.0 The agreed work schedule for the subject package is enclosed as Annexure-III to this MOM.

D. COMMERCIAL ISSUES

- D1.0 SPML, in their Bid proposal have indicated commercial deviations as 'NIL'. However, certain stipulations regarding taxes & duties have been indicated by SPML in their bid for the subject package. The same were discussed and resolved as follows
- D1.1 SPML confirmed that all the items under this package being bought-out, the Bid Prices are inclusive of Excise Duty, Sales tax, WCT and Service tax. POWERGRID, therefore, shall have no liability on account of ED and Sales tax, WCT, Service tax and variation thereof, under this package in the event of award of Contract on SPML.
- D2.0 In regard to Price Adjustment provisions, it has been agreed that the names of published indices, the co-efficients of raw materials/labour and the values of base indices for the purpose of price variation of the Ex-works price of ACSR Conductor shall be as indicated at Annexure-IV.
- D7.0 The Contract price for the subject package, in case of award, shall be as under:

Sl.No.	Price Components	Value (Pa)	7
i)	Ex-Works price	Value (Rs.) 739,264,222	
ii)	Inland Freight & Insurance charges	21,891,798	1
iii)	Erection charges	130,459,668	r
	Total Price	891,615,688	·

Record Notes of Post Bid Discussion for APDRP works in PESU(West) Circles of BSEB

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(Rupees Eight Hundred Ninety One Million Six Hundred Fifteen Thousands)

The above contract price is inclusive of all taxes and duties except applicant documents.

SPML confirmed that except for the specific agreements confirmation recorded under these Record notes. Minutes of Post bid discussions, all other deviations/exception and/or additional conditions, implicit or explicit, contained in the offer of SPML state withdrawn without any cost implication to POWERGRID. SPML, also confirmed the there will not be any extra price implication to POWERGRID on account of specific confirmation /agreements reached as per above and that the Contract shall be performed by them strictly in accordance with the Bidding Documents read in conjunction with above specific agreements/ confirmations.

(POWERGRID)

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(SPML)

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Record Notes of Post Bid Discussion for APDRP works in PESU(West) Circles of BSEB

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पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत रारकार का उद्यम)



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

केन्द्रीय कार्यालय : "सीदामिनी" प्लॉट रा. २, सीक्टर-२९, ग्रुगाँव-१२२००१ , हरियः

फोन : 2571700 - 719, फेक्स : 2571760, 2571761 तार 'नेटिटिड'

Corporate Office: "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, Haryana

Tel.: 2571700 - 719, Fax: 2571760, 2571761 Gram: 'NATGRID' Date: 24.01.2007

Ref. No: C-45249-L968-3/LOA-II/2288

To.

M/s Subhash Projects And Marketing Limited,

22 Camac Street, Block-A,

3rd Floor, Kolkata-700017,

West Bengal

Tel: 033-40091234

Fax: 033-40091303/1301

Kind Attention: Mr. Ajit Mukhopadhyay, General Manager (Business Development)

Subject:

Notification/Letter of Award (LOA) for inland transportation, insurance, unloading, handling, storage at site, erection, testing and commissioning of all equipment and materials for Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circle of Bihar under APDRP Phase-II.

Specification No.: C-45249-L968-3: Funding-Domestic

(ERECTION CONTRACT)

Dear Sir.

1.0 Power Grid Corporation of India Ltd. (A Govt. of India Enterprises) with its registered office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 (hereinafter to be referred as "POWERGRID" or 'Employer') has been entrusted by Bihar State Electricity Board (BSEB) to undertake Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circles under APDRP Phase-II.

REFERENCE 1.1

iii)

This has reference to the following:

1.1.1 Invitation to Bids (INV) dated 18th September, 2006 and corrigendum to NIT dated 21.09.2006 for the subject package.

Bidding Documents against Specification No.: C-45249-L968-3 issued to you vide our 1.1.2 letter no. C/CS-DMS/APDRP/ PESU Dated 04.10.2006 consisting of the following:

Conditions of Contract i) (Doc. Code No. DC-5001-JAN-2003-REV-0) (along with Amendment No.- I to IX)

Special Conditions of Contract ii)

Vol.-IA

(Doc. Code No. DC-45249-9196)

Bid Proposal Sheets (Doc. Code No. DC-45249-9197) Vol.-IB

Technical Specification iv)

Vol.-II

(Doc. Code No. DC-45249-9198). Technical Data Sheets

Vol.-III

v) (Doc. Code No. DC-45249-9199)

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कृत कार्यालय : बी.९. कुंतब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016 दूरभाष : 26560121 फैंक्स : 011-26560039 ताउ∠क्रिट्फिर stered Office: 8-9 Octab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel., 26560121 Fax 011-26560039 Gram

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation



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- 1.1.2.1 Errata No. I & Clarification No.-I to the Bidding Documents issued to you vide our letter ref. no. CC/CS-DMS/PESU(West)/Errata & Clarification dated 26.10.2006 and Clarification No.-II to the Bidding Documents issued to you vide our letter ref. no. CC/CS-DMS/PESU(West)/ Clarification No.-II dated 02.11.2006.
- 1.1.3 Bid submitted by you for the subject package under proposal reference no. 0206/CS/PD/Q:1526/AM/2118 dtd. 24.10.2006 (Bid opened on 10.11.2006) and Clarification submitted by you vide letter ref. No. 0206/Q-1526/AM dtd. 14.12.2006.
- 1.1.4 Record Notes of Post-bid discussions held between POWERGRID and you from 22.01.2007 to 23.01.2007, enclosed as Annexure-I to this LOA. (These record notes of Post Bid discussion shall be read and construed as integral part of this Letter of Award.)
- 2.0 Under this Letter of Award, "Owner" shall mean 'Bihar State Electricity Board (BSEB)' and shall include their legal representatives, successors and assigns. 'Employer' POWERGRID' Consultant' shall mean Power Grid Corporation of India Limited, New Delhi and shall include their legal representatives, successors and assigns.

For the purpose of execution of the Contract, the contractual activities on the part of the 'Owner', wherever context requires so, shall be performed by POWERGRID "for and on behalf of BSEB" except in cases where BSEB itself is statutorily required to do so.

2.1 Wherever reference to POWERGRID is made in the Bidding Documents, Letter of Award or any other related papers/documents, it shall be deemed to be "for and on behalf of BSEB."

3.0 AWARD OF CONTRACT AND ITS SCOPE

- We confirm having accepted your bid (referred to at para 1.1.3 above), read in conjunction with the specifications, terms & conditions of the Bidding Documents and its deviations/specific confirmations as per the record notes of post bid discussions (referred to at para 1.1.4 above) and award on you a 'Contract' (hereinafter referred to as the 'Second of New Line(33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New Phase-II as set forth in the Bidding Documents referred to at para 1.1.2 & 1.1.2.1 above.
- 3.2 The detailed scope of work under the contract has been defined in the Technical includes the following:

Performance of all the activities such as inland transportation to final destination at site and insurance, taking delivery, unloading, handling and storing of all equipment and materials, installation of equipment, erection including associated Civil works, testing and commissioning of all equipment and materials (to be supplied by you under 'First Contract') for Construction of New Line(33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in





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PESU(West) circles under APDRP Phase-II as set forth in the Bidding Documents referred to at para 1.1.2 above

- The scope of work under this Contract shall also include all such items, equipment and materials which are not specifically mentioned in the Bidding Documents, and/or your bid but are necessary for the successful completion of the scope of work under the Contract for Construction of New Line(33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circles under APDRP Phase-II, as detailed in the Bidding Documen's unless otherwise specifically excluded in the Bidding Documents and its subsequent clarifications/amendments/errata, if any, or in this Letter of Award including its Annexures.
- 3.4 This Letter of Award (LOA) is subject to the terms & conditions detailed hereunder:
 - The work under this LOA shall be performed by you strictly in line with the bidding documents referred to at para 1.1.2 above & all its clarifications/amendments/errata referred to at para 1.1.2.1 above except as specifically amended / modified in this LOA and/or in the Record Notes of Post-bid discussions referred to at para 1.1.4 above. All other deviations and/or additional conditions, implicit or explicit, contained in your Bid referred to at para 1.1.3 above and your subsequent communications, if any, shall stand withdrawn without any cost implication to POWERGRID, in so far as they are repugnant to what has been stated in this Letter of Award and/or bidding documents and its subsequent amendment/errata/clarification.
 - Another Contract has been awarded to you vide our Notification/Letter of Award No. C-45249-L968-3/LOA-I/2287 dated 24.01.2007 (hereinafter called the 'First Contract' or the 'Supply Contract') for the subject package, under which the scope of work includes design, engineering, manufacture, testing, and ex-work supply of all equipment and materials, which are to be insured and transported to the final destination site, erected (along with associated civil works), tested and commissioned under this "Second Contract" as set forth in the Bidding documents referred to at para 1.1.2 & 1.1.2.1 above.

You shall be fully responsible for the work to be executed under the "First Contract" and it is expressly understood by you that any breach under the "First Contract" shall automatically be deemed as a breach of this Contract and any such breach or occurrence giving us a right to terminate the "First Contract" and/or recover damages under that Contract shall give us a right to terminate this Contract and/or recover damages under this Contract as well. However, such breach or occurrence in the "First Contract" shall not automatically relieve you of any of your obligations under this Contract. It is expressly understood and agreed by you that the equipment/materials supplied by you under "First Contract", when transported to site, erected and commissioned under this Contract, shall give satisfactory performance in accordance with the Bidding Documents and/or this LOA.







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- rest with the BSEB. However, on Owner's behalf, you shall take full responsibility for the transportation & insurance, handling at site, storage, erection, testing & commissioning of the equipment/materials supplied under the "First Contract" in terms of the Bidding Documents. Your liability under this Contract shall not be over till the work covered under the Contract for Construction of New Line(33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circles under APDRP Phase-II as detailed in the Bidding Documents, is completed, successfully commissioned and handed over to us as per the requirements of the Bidding Documents.
- iv) The Erection Insurance shall be taken by you as per the relevant provisions of Clause 38.0, Section-GCC & Clause 28.0, Section-ECC, Conditions of Contract, Vol.-I and Clause 17.0, Special Conditions of Contract, Vol.-IA of the bidding documents.
- v) For the equipment/materials to be provided by you under the "First Contract", it will be your responsibility to take delivery, unload, handle and store the equipment/materials at site and execute an Indemnity Bond as per proforma enclosed at Annexure-VIII, Section-Annex, Conditions of Contract, Vol.-I of the Bidding Documents in favour of POWERGRID against loss, damage and any risks involved for the full value of the equipment/materials. The Indemnity Bond shall be furnished by you before commencement of the supplies and shall be valid till the scheduled date of testing, commissioning and handing over of Construction of New Line(33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circles under APDRP Phase-II to POWERGRID's Engineer pursuant to Clause 31.0, Section-GCC, Conditions of Contract, Vol.-I of the bidding documents.

4.0 CONTRACT PRICE

4.1 We agree to pay you a total sum of Rs. 152,351,466/- (Rupees One Hundred Fifty Two Million Three Hundred Fifty One Thousand Four Hundred Sixty Six only) as the Contract Price for the entire scope of work under this Contract. The break-up of the above Contract price is as follows:

SL. No.	Price Components	Amount in Rupees
1.	Erection Charges including Charges for Civil works	130,459,668/-
	Inland Freight & insurance Charges	21,891,798/-
3.	Total Contract Price (1+2)	152,351,466/-

Further detailed break-up of above contract price for the purpose of on account payment is given at Annexure-II(A) (F&I Charges) & Annexure-II(B)(Erection charges) to this Letter of Award.





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4.2 Notwithstanding the break-up of the Contract price, the Contract shall, at all times, be construed as a single source responsibility Contract and any breach in any part of this Contract shall be treated as a breach of the entire Contract.

5.0 TAXES AND DUTIES

Taxes & Duties under the subject Contract shall be governed by the provisions of Clause 6.0, Special Conditions of Contract, Vol.-IA of the Bidding Documents & Commercial issue of Record Notes of Post Bid Discussions enclosed at Annexure-I to this LOA.

The Contract price indicated above is inclusive of service tax but is exclusive of applicable Octroi/Entry tax. Applicable Octroi/entry tax, shall be payable by POWERGRID against documentary evidence in line with the provisions of bidding documents.

6.0 TERMS OF PAYMENT

The payment under the Contract shall be made as per Clause 9.0, Terms of Payment, Special Conditions of Contract, Vol.-IA of the Bidding Documents and as brought out below:

- 6.1 Payment of Erection Price component(including charges for Civil Works)
- 6.1.1 Interest Bearing Advance Payment (Optional*): Ten percent (10%) of the erection price component including charges for civil works of the Contract price i.e., Rs. 13,045,967/-(Rupees Thirteen Million Forty Five Thousand Nine Hundred Sixty Seven only) shall be paid as interest bearing initial advance subject to conditions stipulated in Clause 34.7.1 (ii), Section-GCC, Conditions of Contract, Vol.-I of the Bidding Documents and the following:
 - (a) Your acknowledgement of this LOA and LOA Ref. No.: C-45249-L968-3/LOA-1/2287 Dated 24.01.2007 for the "First Contract",
 - (b) Submission of invoice (3 copies) for Interest Bearing Initial Advance Payment,
 - (c) Establishment of your Site Office(s), and certificate by POWERGRID's representative that satisfactory mobilization for erection exists,
 - (d) Submission of an unconditional & irrevocable Bank Guarantee from a bank, the acceptability of which has been specified in the Bidding Documents, in favour of POWERGRID for the equivalent amount of advance i.e, Rs. 13,045,967/- (Rupees Thirteen Million Forty Five Thousand Nine Hundred Sixty Seven only) in accordance with the provisions of clause 34.7.1 (ii) (b), Section-GCC and as per proforma attached with Section-Annex, Conditions of Contract, Vol.-I of the Bidding Documents, initially valid upto 30.04.2008 and which shall be extended





Power Grid Corporation of India Ltd.

LOA Ref. No.: C-45249-L968-3/LOA-II/2288 Dated 24.01.2007



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from time to time until ninety (90) days beyond the actual date of successful completion of commissioning, as may be required under the Contract,

- (e) Submission of an unconditional & irrevocable Bank Guarantee towards Contract
 Performance Guarantee as per para 11.0 of this Letter of Award,
- (f) Submission of an unconditional & irrevocable Bank Guarantee towards Contract. Performance Guarantee against Letter of Award Ref. No.: C-45249-L968-3/LOA-I/2287 dated 24.01.2007.
 - * This payment is an optional payment. You have the option of taking the interest bearing advance or otherwise.

In case, you opt for this interest bearing advance, the same shall be paid to you on fulfillment of above conditions and in line with Clause No. 34.7.1 (iii) of GCC, and an interest on monthly outstanding amount will be charged at the rate of 6.52% per annum. The monthly outstanding amount for the purpose of calculating the interest shall be worked out at the end of each calendar month considering proportionate adjustment of advance against the progressive payment for the work done as per 6.1.2 below.

In case, you opt not to take interest bearing advance as above, it would be mandatory for you to submit the document listed at Si. No. (a), (e) and (f) above within thirty (30) days of issuance of LOA.

- 6.1.2 Progressive Payment: Eighty percent (80%)** of the erection price component (including charges for civil works) for each of the items of work shall be paid on progressively, monthly on pro-rata basis at unit rates based on quantum of work done and certification by POWERGRID's representative and on successful completion of quality check point involved in erection.
 - ** In case, you opt not to take interest bearing advance then this payment shall be 90% instead of 80%.
- 6.1.3 Balance Payment: Balance ten percent (10%) of the erection price component (including charges for civil works) of shall be paid after successful erection, testing and commissioning of the Underground cable/Substation/Line bays/Lines/DTs and on issuance of Taking Over Certificate by POWERGRID.
- 5.1.4 "Commissioning" for the purpose of payments shall mean satisfactory completion of all supplies, erection, commissioning checks and successful completion of all site tests and continuous energisation of the equipment/materials at rated voltage at site as per the Contract and to the satisfaction/approval of POWERGRID.

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Payment of Inland Freight and Insurance Charges 5.2

The Charges towards Freight and Insurance shall be paid to you on pro-rata basis, as per the unit rate of F&I, after receipt of the equipment at site and on production of invoices along with supporting documents by you. The aggregate of all such pro-rata payments shall, however, not exceed the total amount indicated in the Annexure-II(A) to this LOA for Freight and Insurance charges.

.3 Payment of Taxes and duties

- Taxes & Duties, as payable as per provisions of bidding documents and as incorporated in the contract, will be paid/re-imbursed directly to you by POWERGRID (for and on behalf of BSEB) as per contract against documentary evidence.
- .3.2 The recovery of TDS under the various tax laws related to this work shall be done by POWERGRID for and on behalf of BSEB. TDS so deducted shall be deposited with the relevant tax authorities & TDS certificate shall be issued by POWERGRID on behalf of BSEB using their permanent A/C no. and TDS A/C number. Relevant challans and copies of TDS certificate shall be forwarded to BSEB for filing the necessary returns.

Mode of Payment

- All payment against this contract shall be made by POWERGRID under suitable 4:1 arrangement with BSEB/Govt. of Bihar.
- All the payments under this Contract shall be made by POWERGRID (for and on behalf of 4.2 BSEB) directly to you within thirty (30) days of receipt of your invoice, complete in all respects and supported by the requisite Documents and fulfillment of stipulated conditions.
- All invoices under the Contract shall be raised by you on "Bihar Sate Electricity Board (BSEB)-acting through Power Grid Corporation of India Limited" and submitted to POWERGRID for payment. Payment shall be made to you by POWERGRID for and on behalf of BSEB.
- 5.4 POWERGRID shall arrange issuance of payment certificate wherever required, from BSEB.

OUANTITY VARIATION

Quantity variation under the Contract shall be governed by the provisions of Clause 24.0, Section-GCC, Conditions of Contract, Vol.-I and Clause 11.0, of Special Conditions of Contract, Vol.-IA of the Bidding Documents.

INSURANCE

The provision of insurance under the Contract shall be as per Clause 17.0, Special Conditions of Contract, Vol.-IA of the Bidding Documents and as per the following:



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- 8.1 All the equipment and materials including spares, if any, being supplied by you shall be kept completely insured by you at your cost from the time of dispatch from your works/sub-vendor's works, upto the completion of erection, testing & commissioning at site and taking over of the Underground Cable/Sub-station/ Line/DTs by POWERGRID (for and on behalf of BSEB) in accordance with the Bidding Documents.
- Further, all the equipment and materials including spare, if any, being supplied by POWERGRID/BSEB for erection, testing and commissioning(as per Technical Specification) shall be kept insured by the Contractor against any loss, danage, pilferage, theft, fire etc. from the point of commencement of unloading upto the time of taking over by POWERGRID including handling, transportation, storage, erection, testing and commissioning etc. The premium paid to the Insurance company by you for such insurance shall be reimbursed by POWERGRID (for and on behalf of BSEB) to you at actuals against documentary evidence to be furnished to you. You shall obtain competitive quotations for such insurance and shall take prior approval from the POWERGRID before taking the insurance. The insurable value of the equipment being supplied by POWERGRID/BSEB, if any, shall be intimated to you for arranging the insurance.
- 8.3 It will be your responsibility to lodge, pursue and settle all claims with the insurance company for all equipment / materials in case of any damage, loss, theft, pilferage or fire during execution of Contract and POWERGRID shall be kept informed about it. You shall be responsible for the replacement of the lost/damaged materials promptly irrespective of the settlement of the claims by the underwriters and you shall ensure that the work progress is as per the agreed schedule. The losses, if any, in such replacement shall be to your account.
- The insurance covers to be taken by you shall be in the joint name of POWERGRID and you. You shall, however, be authorized to deal directly with insurance company(ies) and shall be responsible in regard to maintenance of all insurance covers.

9.0 WORK SCHEDULE

- 9.1 The basic consideration and essence of the Contract is the strict adherence to the Work Schedule. The work under this Contract shall be performed in such a manner so as to meet the schedule and the key dates identified in Annexure-III to this Letter of Award.
- 9.2 The time for successful completion of Construction of New Line (33kV,11kV and LT) and Underground cable (33kV,11kV and LT), New 33/11kV S/S & Revamping of existing 33/11 kV S/S in PESU(West) circle of Bihar under APDRP Phase-II as per the bidding documents is 12 (Twelve) months from the date of this Letter of Award i.e., upto and inclusive of 23.01.2008.
- 9.3 You shall develop and furnish a detailed work schedule in the form of Master Network/Bar chart indicating various activities to be performed under the Contract based on data identified in Annexure-IV to this LOA, within 30 days from the date of this LOA. The above Master Network/ Bar Chart after approval will form a part of Contract Agreement.





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9.4 For the purpose of levy of liquidated damages for delay as per para 10.0 below, 24.01.2008. shall be the date from which liquidated damages for delay shall be applicable.

10.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION

- 10.1 If you fail to perform the works, with respect to successful completion of testing and commissioning of the Underground cable/Sub-stations/Line bays/ line/Distribution Transformers under the Contract, within the period specified in clause 9.0 of this Letter of Award or any time extension granted thereof, then you shall pay to POWERGRID, a sum equivalent to one half of one percent (0.5%) of the respective Contract price as liquidated damages for such default and not as a penalty, without prejudice to other remedies of POWERGRID (for and on behalf of BSEB) under the Contract, for each calendar week of delay or part thereof. However, the total amount of liquidated damages for delay under the Contract shall be limited to a maximum of five (5) percent of the total Contract Price.
- 10.2 POWERGRID may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to you. The payment or deduction of such damages shall not relieve you from your obligation to complete the works, or from any of your other obligations and liabilities under the Contract.
- 10.3 In addition to the above, LD for delay as applicable under "First Contract" shall also be recoverable from you. Both these LD will run concurrently.
 11.0 CONTRACT REPRODUCTION

1.1.0 CONTRACT PERFORMANCE GUARANTEE

- 11.1 You shall furnish an unconditional and irrevocable Bank Guarantee from a bank, the acceptability of which has been specified in the Bidding Documents, in favour of POWERGRID for an amount of 15,235,147/-(Rupees Fifteen Million Two Hundred Thirty Five Thousand One Hundred Forty Seven only) i.e., equal to ten percent (10%) of total Contract Price, towards Contract Performance Guarantee within thirty (30) days from the date of this Letter of Award as per Clause 43.0, Sec.-INB, Conditions of Contract, Vol.-I and as per proforma enclosed at Annexure-II, Section-Annex, Vol.-I of the Bidding Documents. The above Contract Performance Guarantee shall be kept valid until the expiry of ninety (90) days after the end of warranty period i.e., valid initially upto and including 30.04.2009 and shall be extended from time to time until expiry of ninety (90) days beyond the actual completion of warranty period, as may be required under the Contract.
- You shall keep the Bid Guarantee valid till the Contract Performance Guarantee submitted by you is accepted by POWERGRID.

9 QUALITY ASSURANCE & INSPECTION

All the Quality Assurance & Inspection matters pertaining to this Contract shall be dealt as per the Bidding Documents and in accordance with the Record Notes of Post-bid Discussions, enclosed herewith as Annexure-I.







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13.0 PROGRESS REPORT

- 1.3.1 You shall submit monthly progress report on the status of the following activities as on last day of each calendar month so as to reach us by 10th of the succeeding month.
 - (i) Receipt of equipment/materials.
 - (ii) Field Activities.
 - (iii) Payment received.

These progress reports shall be submitted in five (5) copies and shall be distributed by you as follows:

- i) 1 copy to DMS Deptt. at Corporate center, Gurgaon.
- ii) 1 copy to Corporate Monitoring Group at Corporate center, Gurgaon.
- iii) I copy to Quality Assurance Deptt. at Corporate centre, Gurgaon.
- iv) 1 copy to Regional Head Quarter (ERTS-I), Patna
- v) 1 copy to Site office

14.0 PROJECT ORGANISATION AND CO-ORDINATION

- 14.1 You shall nominate the co-ordinators for each of the following functions under this Contract within 15 days from the date of issue of this Letter of Award:
 - i) Project Engineering.
 - ii) Procurement/manufacturing activities.
 - iii) Quality Assurance and Inspections.
 - iv) Contract operation including schedules.

Alternative co-ordinators shall also be nominated to facilitate uninterrupted working.

15.0 CORRESPONDENCE PROCEDURE

15.1 For the purpose of correspondences, the address of various departments and offices and the procedure for correspondence are given at Annexure-IV.

16.0 CONTRACT AGREEMENT

- 16.1 Notwithstanding anything stated elsewhere in the Bidding Documents, this Letter of Award will constitute the formation of the Contract which will be effective from the date of this Notification/Letter of Award.
- 16.2 You shall enter into a formal Contract Agreement with us within sixty (60) days of issuance of this Letter of Award. Contract Agreement shall be prepared by and completed at your cost in the form provided in Bidding Documents.

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17.0 SETTLEMENT OF DISPUTES AND ARBITRATION

- 17.1 All the differences or disputes arising out of this Contract shall be settled through the process of "Settlement of Disputes" and "Arbitration" as per Clause 48.0 & Clause 49.0, Section-GCC, Conditions of Contract, Vol.-I of the Bidding Documents. The provisions of Arbitration & Reconciliation Act, 1996 as amended from time to time, shall apply.
- 17.2 The Delhi Courts alone shall have the exclusive jurisdiction in all matters arising out of this Contract. The arbitrator shall give reasoned award.
- 18.0 This Notification/Letter of Award is being issued to you in duplicate. We now request you to return the duplicate copy duly signed and stamped on each page including all the enclosed Annexures, within fifteen (15) days from the date of this Letter of Award as a token of your acknowledgement.
- 19.0 We thank you for the interest shown by you in the project so far and look forward to receive your continued co-operation.

Please take necessary action to commence the work immediately and confirm.

Thanking you,

Yours faithfully

(M. K. Singh) Chief Manager (CS)

Annexure-I Record Notes of Post-bid Discussions

2. Annexure-II(A) Price Break-up of F&I Charges

Annexure-II(B) Price Break-up Erection Charges.
 Annexure-III Works Completion Schedule.

5. Annexure-IV Correspondence Procedure along with the List of Addresses.



RECORD NOTES/MINUTES OF POST BID DISCUSSIONS HELD ON 22/01/2007 & 23/01/2007 BETWEEN POWERGRID AND M/S SUBHASH PROJECTS AND MARKETING LIMITED.. KOLKATA (SPML) IN THE OFFICE OF POWERGRID AT GURGAON IN RESPECT OF SPML'S PROPOSAL FOR CONSTRUCTION OF NEW LINE (33KV,11KV AND LT) AND UNDERGROUND CABLE (33KV,11KV AND LT), NEW 33/11KV S/S & REVAMPING OF EXISTING 33/11 KV S/S IN PESU(WEST) CIRCLE OF BIHAR UNDER APDRP PHASE-II

Specification No.: C-45249-L968-3

PRESENTS

POWERGRID

- 1. Mr. B. K. Gupta, GM (CS)
- 2. Mr. V.C. Jagannathan, AGM (Fin.)
- 3. Mr. K. R. Suri, AGM (DMS)
- 4. Mr. Sudhir Mittal, AGM(CMG)
- 5. Mr. Y.S. Prasad, DGM(Fin.)
- 6. Mr. P. Pratap Kumar, DGM (CS)
- 7. Mr. R.K.Bansal, DGM(DMS), Patna
- 8. Mr. T.C Gupta, DGM(DMS)
- 9. Mr. J K Parihar, DGM (QA&I)
- 10. Mr. A K Sharma, , DGM (QA&I)
- 11. Mr. S. Das, Ch. Manager (QA&I)
- 12. Ms Pratyaksha, Ch. Mgr. (Fin.)
- 13. Mr. R.Ranjan, Ch. Manger(DMS)
- 14. Mr. M. K. Singh, Ch. Mgr. (CS)

SPML

1. Mr. Ajit Mukhopadhyay

General Manager (Busimess Development)

2. Mr. B.K. Das, Asst. Manager(BD)

A. TECHNICAL ISSUES:

- 1.0 SPML confirmed that percentage impedance of 400kVA and 200kVA, II/0.433 kV transformer will be 4% as per technical specification.
- 2.0 POWERGRID clarified that all cable erection/installation activities shall be covered under SI No B3.2 of Schedule-4 of BPS, except end termination and straight through respectively.
- 3.0 POWERGRID clarified that all cable erection/installation activities shall be covered under SI No C1.1 of Schedule-4 of BPS, except end termination and straight through respectively.
- 4.0 SPML confirmed that 150W HPSV lamps has been offered in place of 125 W HPS without any extra financial liability to POWERGRID.
- 5.0. SPML confirmed that the duty cycle for 33 & 11kV VCB will be 0.3 sec-CO-3 min-C as per the technical specifications.

Record Notes of Post Bid Discussion for APDRP works in PESU(West) Circles of BSEB

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- 6.0 SPML confirmed that the secondary current rating of 11kV CT of indoor panels shall be 5-5 Amp as per TS.
- 5.25 A as per TS.
- 8.0 SPML confirmed that the Minimum Creepage distance shall be 320 mm for each disk of both 11kV & 33kV Disk insulators as per TS.
- 9.0 List of Vendors/sub-vendors for QR items, drawings/documents submission schedule and list of drawings/documents as agreed for claiming interim advance are enclosed at Annexure-LA, LB & LC respectively.
- 10.0 SPML also submitted the material planning for the entire scope of the work for the subject package as enclosed at Annexure-I D.

B. QUALITY ISSUES

B1.0 The agreed Record notes of discussion in respect of quality matters are enclosed at Annexure-II to this MOM.

C. WORK SCHEDULE

C1.0 The agreed work schedule for the subject package is enclosed as Annexure-III to this MOM.

D. COMMERCIAL ISSUES

- D1.0 SPML, in their Bid proposal have indicated commercial deviations as 'NIL'. However, certain stipulations regarding taxes & duties have been indicated by SPML in their bid for the subject package. The same were discussed and resolved as follows
- DI.I SPML confirmed that all the items under this package being bought-out, the Bid Prices are inclusive of Excise Duty, Sales tax, WCT and Service tax. POWERGRID, therefore, shall have no liability on account of ED and Sales tax, WCT, Service tax and variation thereof, under this package in the event of award of Contract on SPML.
- D2.0 In regard to Price Adjustment provisions, it has been agreed that the names of published indices, the co-efficients of raw materials/labour and the values of base indices for the purpose of price variation of the Ex-works price of ACSR Conductor shall be as indicated at Annexure-IV.
- D7.0 The Contract price for the subject package, in case of award, shall be as under:

Sl.No.	Price Components	Value (Rs.)
i)	Ex-Works price	739,264,222
ii)	Inland Freight & Insurance charges	21,891,798
iii)	Erection charges	130,459,668
	Total Price	891,615,688

Record Notes of Post Bid Discussion for APDRP works in PESU(West) Circles of BSEB

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(Rupees Eight Hundred Ninety One Million Six Hundred Fifteen Thousand Six Hundred Eighty Eight only).

The above contract price is inclusive of all taxes and duties except applicable Octroi entry tax, which shall be paid/reimbursed, in line with the provisions of bidding documents.

E. SPML confirmed that except for the specific agreements/confirmation recorded under these Record notes/ Minutes of Post bid discussions, all other deviations/exceptions and/or additional conditions, implicit or explicit, contained in the offer of SPML stand withdrawn without any cost implication to POWERGRID. SPML, also confirmed that there will not be any extra price implication to POWERGRID on account of specific confirmation /agreements reached as per above and that the Contract shall be performed by them strictly in accordance with the Bidding Documents read in conjunction with above specific agreements/ confirmations.

(POWERGRID)

(SPML)

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Record Notes of Post Bid Discussion for APDRP works in PESU(West) Circles of BSEB

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## Specification No. C-45249-L968-3

## List Of Vendor/Sub-Vendors for QR Items

| No Item Description              | Source of Supply                               |
|----------------------------------|------------------------------------------------|
| 1 Transformer                    | May Mini Planting In 144 Floring               |
| Hansioiniei                      | M/s Vijai Electricals Ltd., Hyderabad          |
|                                  | M/s Marson, Agra                               |
|                                  | M/s Areva, Naini                               |
|                                  | M/s Emco, Thane                                |
|                                  | M/s East India Udyog, Gaziabad                 |
|                                  | M/s P S Electrical                             |
|                                  | M/s ABB                                        |
|                                  | M/s Lakshmi Transformer Electrical*  M/s SPEC* |
|                                  | IN/S SPEC                                      |
| 2 33 KV & 11 KV VCB              | M/s ABB, Baroda                                |
|                                  | M/s Areva Ltd., Naini                          |
|                                  | M/s Crompton Greaves Ltd, Nasik                |
|                                  | M/s Megawin, Chennai/ Equivalent               |
|                                  |                                                |
| 2 5                              |                                                |
| 3 Surge Arrestors                | M/s Alstom Ltd., Pondicherry                   |
|                                  | M/s Elpro,Pune                                 |
|                                  | M/s Oblum , Hyderabad                          |
|                                  | M/s Crompton Greaves Ltd, Nasik                |
|                                  | M/s Lamco*                                     |
| 4 33 & 11 KV Current Transformer | M/s Kapco, Noida                               |
| and Potential Transformer        | M/s Vishal, Meerath                            |
|                                  | M/s Crompton Greaves Ltd, Nasik                |
|                                  | M/s Instrans*                                  |
|                                  | M/s Gyro lab*                                  |
|                                  | M/s Modern*                                    |
|                                  | M/s Laxmi Engg.*                               |
|                                  |                                                |
| Disc/Pin insulator               | M/s India Potteries, KolKata                   |
|                                  | M/s Allied ceramics                            |
|                                  | M/s Birla NGK Insulators Pvt. Ltd.KolKata      |
|                                  | M/s TCL*                                       |
|                                  | M/s IPL *                                      |
| Cable                            | Mrs Com Cobles Undershad                       |
|                                  | M/s Gem Cables, Hyderabad                      |
|                                  | M/s Ekta cable(Scot Innovation)*               |
|                                  | M/s Paragon Cable India, New Delhi             |
|                                  | M/s KEI Industries, New Delhi/ Bhiwari         |
|                                  | M/s Cable Corporation of India Ltd., Bangalore |
|                                  | M/s Industrial cable*                          |
|                                  | M/s Universal                                  |
|                                  | M/s Torrent*                                   |
|                                  | M/s Havelis*                                   |
|                                  | M/s Suyog Electricals Pvt. Ltd.*               |

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| 7 ACSR Conductor          | M/s Sterlite Industries, Silvassa/Pune                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | M/s HVPL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                           | M/s Apar, Silvasa/Vadodara                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                           | M/s Deepak cables                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                           | M/s Lumino*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                           | M/s Gupta cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                           | M/s Mehra Electric*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 8 Ring main unit-Oil ty   | 700                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| O I King main unit-on ty  | The state of the s |
|                           | M/s Andrew Yule*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                           | M/s Schneider*/ Equiv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9 Battery Charger         | M/s HBL Nife                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                           | M/s Caldyne                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                           | M/s Chabbi electricals Pvt. Ltd., Jalgaon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                           | M/s Amar Raja, Thirupti                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 10 33 kV C&R Panel        | M/s Venson Electrical , Banglore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                           | M/s Expo-fyn, Jaipur                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                           | M/s Easun Reyrolle ltd., Chennai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                           | M/s Areva*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                           | M/s Mktel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                           | M/s OPG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2 11 kV C&R Panel (Ind    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                           | M/s Areva Ltd., Naini                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                           | M/s Crompton Greaves Ltd, Nasik                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                           | Ws Megawin, Chennai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1 Street Light Octogonal  | Mast Ma Pairi Fire Control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                           | Mast M/s Bajaj Electricals, Pune*  M/s Utkarsh Tube*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                           | M/s B P Projects*  M/s Skipper Steel*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                           | The Oxipper steet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| A B Switch                | M/s Power Line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                           | M/s Universal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                           | M/s Ultima Sweatchgears                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                           | M/s P R Engineering*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                           | M/s G S Nandi & company *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                           | M/s Azad Associates*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                           | M/s P R Engg,*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                           | M/s Hivelem Industries*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                           | M/s Modern                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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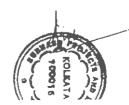
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|                                                                     |        | APPENDIX - I B                                  |
|---------------------------------------------------------------------|--------|-------------------------------------------------|
| PESU(West)                                                          |        | * (4)                                           |
| DRAWINGS / DOCUMENTS SUBMISSION SCHEDULE                            |        |                                                 |
| DRAWING / DOCUMENT DESCRIPTION                                      | CAT    | SUBMN.SCHEDULE<br>WEEKS FROM THE<br>DATE OF LOA |
|                                                                     |        |                                                 |
| ELECTRICAL DESIGN / DRAWING SINGLE LINE DIAGRAM OF ALL SUBSTATIONS  | A      | 3 TO 5                                          |
| TO THE STATIONS                                                     | A<br>A | 5 TO 6.<br>6 TO 8                               |
| ELECTRICAL LAYOUT (PLAN & SECTION) OF ALL SOUSTATIONS               | A      | 22 TO 24                                        |
|                                                                     | A      | 16 TO 20                                        |
| COUNTATION & CABLE TRENCH LAYOUT FOR ALL SOUSTATIONS                | Ä      | 14 TO 16                                        |
| CARTHMAT LAYOUT FOR ALL SUBSTATIONS                                 | Α      | 24 TO 26                                        |
| EQUIPMENT/STRUCTURE EARTHING DETAILS                                | Α      | 16 TO .18                                       |
| BILL OF QUANTITY FOR ALL SUBSTATIONS POWER & CONTROL CABLE SCHEDULE | Α      | 28.TO 30                                        |
| NOTE OF THE EAST CONSTRUCTOR AND TALL SHESTATIONS!                  | A      | 20 TO 22                                        |
| LIGHTING LAYOUT FOR SWITCHTARD (ALL SUBSTATIONS)                    | Α      | 20 TO 22                                        |
| EQUIPMENT DRAWINGS                                                  |        |                                                 |
| 33/11KVM 5 MVA POWER TRANSFORMER                                    | ^      | 16 TO 18                                        |
| DATA SHEET                                                          | A<br>A | 16 TO 18                                        |
| ALL RELEVANT DRAWINGS                                               | Â      | 32 TO 34                                        |
| TYPE TEST REPORTS                                                   |        | <b>42</b> 1 <b>3</b> 1                          |
| 11/0.433KV; DISTRIBUTION TRANSFORMER                                | А      | 16 TO 18                                        |
| DATA SHEET                                                          | Α      | 16 1 O 18                                       |
| ALL RELEVANT DRAWINGS TYPE TEST REPORTS                             | Α      | 32 TO 34                                        |
| 36KV; VACUUM CIRCUIT BREAKER                                        | А      | 10 TO 12                                        |
| DATA SHEET                                                          | A      | 10 TO 12                                        |
| ALL RELEVANT DRAWINGS                                               | A      | 10 TO 12                                        |
| TYPE TEST REPORTS                                                   | • •    |                                                 |
| 12KV; VACUUM CIRCUIT BREAKER AND 11 kV Indoor C&R Panel             | Α      | 10 TO 12                                        |
| DATA SHEET                                                          | Α      | 10 TO 12                                        |
| ALL RELEVANT DRAWINGS TYPE TEST REPORTS                             | Α      | 10 TO 12                                        |
| 36 KV AB SWITCH / 12KV AB SWITCH                                    | ^      | 18 TO 20                                        |
| DATA SHEET                                                          | A<br>A | 18 TO 20                                        |
| ALL RELEVANT DRAWINGS                                               | Â      | 18 TO 20                                        |
| TYPE TEST REPORTS                                                   | .,     |                                                 |
| 30KV, LIGHTNING/SURGE ARRESTOR                                      | Α      | 12 TO 14                                        |
| DATA SHEET                                                          | A      | 12 TO 14                                        |
| ALL RELEVANT DRAWINGS<br>TYPE TEST REPORTS                          | Α      | 12 TO 14                                        |
| 9KV, LIGHTNING / SURGE ARRESTOR                                     | Δ.     | 12 TO-14                                        |
| DATA SHEET                                                          | A<br>A | 12 TO 14                                        |
| ALL RELEVANT DRAWINGS                                               | A      | 12 TO 14                                        |
| TYPE TEST REPORTS                                                   |        |                                                 |

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|---------------------------------------------------------------------------------|--------|----------------------|
| DRAWING / DOCUMENT DESCRIPTION                                                  |        |                      |
|                                                                                 | CAT    | SUBMN.SC<br>WEEKS FR |
| 8 36KV; CURRENT TRANSFORMER / 12 KV CURRENT TRANSFORMER 8) DATA SHEET           |        | DATE OF              |
| b) ALL RELEVANT DRAWINGS                                                        | = A    | 40 ==                |
| CI TYPE-TEST REPORTS                                                            | A      | 16 10 1              |
| 9 33KV- CONTROL & RGL                                                           | A      | 16 TO 1              |
| 9 33KV; CONTROL & RELAY PANEL  B) DATA SHEET OF RELAYS                          |        | ,0 10 1              |
| b) TECHNICAL LITERATURE OF RELAYS                                               |        |                      |
| CA. BOM & SCHEMATIC DRAWINGS OF -                                               | A      | 24 TO 26             |
| d) TYPE TEST REPORTS                                                            | R<br>A | 24 TO 26             |
|                                                                                 | Â      | 26 TO 30             |
| 10 33KV; POTENTIAL TRANSFORMER / 12KV POTENTIAL TRANSFORMER 2) DATA SHEET       |        | 24 TO 26             |
| DATA SHEET  D) ALL RELEVANT DRAWINGS                                            |        |                      |
| b) ALL RELEVANT DRÁWINGS<br>c) TYPE TEST REPORTS                                | Ä      | 16 TO 18             |
|                                                                                 | A      | 16 TO 18             |
| 13 Rail Pole, Steel Tubuic r Poles & Street Light Octogonal Mast  a) DATA SHEET | Α      | 16 TO 18             |
| a) DATA SHEET Doles & Street Light Octogonal Mast                               |        | •                    |
| b) DRAWING                                                                      | Α      | 12 TO 14             |
| 12 STAY SET                                                                     | Α      | 16 TO 18             |
| a) DRAWING                                                                      |        |                      |
| 11 BATTERIES                                                                    | A      | 20 TO 22             |
| a) DATA SHEET                                                                   |        |                      |
| b) ALL RELEVANT DRAWINGS                                                        | ^      |                      |
| TYPE TEST REPORTS                                                               | A<br>A | 20 TO 22             |
| 2 BATTERY CHARGED                                                               | A      | 20 TO 22<br>20 TO 22 |
| 2 BATTERY CHARGER ) DATA SHEET                                                  |        | 20 10 22             |
| ALL RELEVANT DRAWINGS                                                           |        |                      |
| TYPE TEST REPORTS                                                               | A      | 20 TO 22             |
|                                                                                 | A<br>A | 20 TO 22             |
| 415V ACDB, 30V DCDB, Feeder pillar, Service pillar and Distribution Box         | 7.3    | 20 TO 22             |
| DATA SHEET  GA. BOM & SCHEMATIC CO                                              |        |                      |
| GA, BOM & SCHEMATIC DRAWINGS FOR ACDB & DCDB TYPE TEST REPORTS                  | A      | 22 TO 24             |
|                                                                                 | A      | 22 TO 24             |
| All HT XLPE CABLE                                                               | Α      | 22 TO 24             |
| DATA SHEET                                                                      |        |                      |
| TYPE TEST REPORTS                                                               | Α      | 26 TO 28             |
| PVC POWER & CONTROL                                                             | A      | 26 TO 28             |
| PVC POWER & CONTROL CABLES DATA SHEET                                           |        |                      |
| TYPE TEST REPORTS                                                               |        |                      |
|                                                                                 | A      | 26 TO 28             |
| CABLE GLANDS                                                                    | Α      | 26 TO 28             |
| DRAWING/CATALOGUE OF DIFFERENT SIZES OF CABLE GLANDS                            |        |                      |
|                                                                                 |        |                      |

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| <b>±</b> | S.NO DRAWING / DOCUMENT DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CAT    | SUBMN.SCHEDI<br>WEEKS FROM T |
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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | DATE OF LOA                  |
|          | 17 CLAMPS/CONNECTORS/TERMINAL CONNECTORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                              |
| ı        | a) DRAWINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Α      | 28 TO 30                     |
| ì        | b) TYPE TEST REPORTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | А      | 28 TO 30                     |
| ı        | 18 CONDUCTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |                              |
| - 1      | a) DATA SHEET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | А      | 15 TO 20                     |
| 1        | b) TYPE TEST REPORTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A      | 16 TO 20                     |
| 1        | 19 33KV & 11kV DISC INSULATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                              |
| 1        | a) ALL RELEVANT DRAWINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | А      | 16 TO 20                     |
| ĺ        | b) TYPE TEST REPORTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A      | 16 TO 20                     |
| -        | 20 33KV &11kV PIN/BUS POST INSULATOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                              |
| ĺ        | a) ALL RELEVANT DRAWINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ^      | 46.70.00                     |
| '        | b) TYPE TEST REPORTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A      | 16 TO 20<br>16 TO 20         |
|          | CALL FIRE ENTINGUENCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | 10 10 20                     |
|          | 21 FIRE EXTINGUISHERS a) CATALOGUES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                              |
|          | 4, 0, m. 1000 E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Α      | 28 TO 30                     |
|          | 22 LIGHTING FIXTURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                              |
|          | a) CATALOGUES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Α      | 28 TO 30                     |
|          | 23 RMUs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                              |
|          | a) ALL RELEVANT DRAWINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Α      | 16 TO 20                     |
|          | b) TYPE TEST REPORTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A      | 18 TO 22                     |
|          | C CIVIL DRAWINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                              |
|          | .1 Soil Investigation Report of all Substations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ^      |                              |
|          | 2 Contour Layout of all substations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | A<br>A | 8 to 10<br>6 to 8            |
|          | 3 Design of Support Structure for 33KV/11KV CB, AB Switch, CT, PT, LA , RMU, &                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A      | 20 to 22                     |
|          | Incoming Gantry Fabrication Drawings of Support Structure for 33KV/11KV CB, AB Switch, CT,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4      |                              |
|          | r i, LA & incoming Gantry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                              |
|          | 5 Design of Foundation for SMVA Power Transformer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A<br>A | 20 to 22<br>20 to 22         |
|          | Drawing of Foundation for 5MVA Power Transformer Design of Foundation for Drawing of D | A      | 20 to 22                     |
|          | 7 Design of Foundation for Drawing of Foundation for 33KV/11KV CB, AB Switch, CT, PT, LA & Incoming Gantry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Α      | 20 to 22                     |
|          | Drawing of Foundation for 33KV/11KV CB, AB Switch, CT, PT, LA, RMU, Steel Tubular                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                              |
|          | roles a incoming Gantry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Α      | 20 to 22                     |
| 9        | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ä      | 28 to 32                     |
|          | O Cross Sectional details of Roads in Switchyard (for all substations) Layout Drawing & Details for Boundary Wolf (for all publications)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Α      | 28 to 32                     |
|          | Layout Drawing & Details for Boundary Wall (for all substations) Design of Cable Trench Sections                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Α      | 22 to 24                     |
| 3        | 3 Details of Cable Trench Sections                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | A      | 20 to 22                     |
| 4        | 4 Design of Drainage System (for all                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A      | 20 to 22                     |
| 5        | 5 Details of Drains (for all Substations)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A      | 26 to 32<br>28 to 32         |
| 3        | and the state of t | . ,    | 201032                       |
| )        | Design of Control Room Building Plan, Elevation & Sections Drawing of CR Building                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A      | 8 to 12                      |
| 11       | Details of Plinth Beams & Reinforcement Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | А      | 8 to 12                      |
|          | Foundation Layout of Footing & Columns                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A      | 12 to 16                     |
|          | Roof Slab Reinforcement Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A<br>A | 12 to 16                     |
|          | Roof Beam Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A      | 16 to 20<br>16 to 20         |
|          | Internal Cable Trench Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Ä      | 16 to 20                     |
|          | Details of Toilet & Pantry Door & Window Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | A      | 20 to 22                     |
|          | Finish Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A      | 20 to 22                     |
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | А      | 22 to 24                     |
|          | And the second s |        |                              |

Any other drawing/document if required shall be submitted by M/s SPML

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# LIST OF DRAWINGS / DOCUMENTS AS AGREED FOR CLAIMING ENGINEERING ADVANCE PAYMENT

|    | S.N          | O. DRAWING / DOCUMENT DESCRIPTION                  | CATEGOR  |   |
|----|--------------|----------------------------------------------------|----------|---|
|    |              |                                                    | CATEGORY | ' |
|    | A            | EEEOTRICAL                                         |          |   |
|    | 2            | Single Line Diagram of all New substations         |          |   |
|    | -            | Vacuum Circuit Breaker                             | . А      |   |
|    | a)           |                                                    |          |   |
|    | b)           | OGA Drawing                                        | А        |   |
|    | 3            | 11KV Vacuum Circuit Breaker                        | Α        |   |
|    | a)           | Data Sheet                                         | _        |   |
|    | b)           | OGA Drawing                                        | Α        |   |
|    | 4            | 30KV LA                                            | Α        |   |
|    | a)           | Data Sheet                                         |          |   |
|    | b)           | OGA Drawing                                        | A        |   |
|    | 5            | 9KV LA                                             | Α        |   |
|    | a)           | Data Sheet                                         |          |   |
|    | b)           | OGA Drawing                                        | Α        |   |
|    | 6            | 33KV & 11kV Disc Insulator                         | Α        |   |
|    | a)           | Data Sheet                                         |          |   |
|    | b)           | OGA Drawing                                        | Α.       |   |
|    | 7            | 33KV & 11kV Pin Insulator                          | А        |   |
|    | a)           | Data Sheet                                         | 100      |   |
|    | b)           | OGA Drawing                                        | Α        |   |
|    | 8            | 33/11KV Power Transformer, DTs & RMU               | Α        |   |
|    | a)           | 2019 211661                                        |          |   |
|    | b)           | OGA Drawing                                        | A        |   |
|    | 9            | HT XLPE cable                                      | Α        |   |
|    | <del>3</del> | CIVIL                                              | Α        |   |
|    | ì            | Soil Investigation Report of all New Substations   |          |   |
| 2  | -            | Control Room Layout Drawing of all New Substations | А        |   |
| ١, | гс.          | 1                                                  | А        |   |

NOTE: 1 A Stands for APPROVAL

Approval of above drawings / documents in Category II or IV
shall entitle M/s SPML to claim Interim Advance Payment equivalent
to 10% of the Supply Contract.

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| ļ    | Tentative Material Planning         | g                                |                                          |
|------|-------------------------------------|----------------------------------|------------------------------------------|
| SIN  | e Description of items              | Expected Date of order placement | Expected Date for commencement of supply |
| 1    | 33 kV XLPEcable                     | 2 month from<br>LOA date         | 4 month from CLOA date                   |
| 2    | 11kV XLPE cables                    | 2 month from<br>LOA date         | 4 month from<br>LOA date                 |
| 3    | L'T cables                          | 2 month from<br>LOA date         | 4 month from<br>LOA date                 |
| a    | Control cable:                      | 2 month from<br>LOA date         | 4 month from<br>LOA date                 |
| 5    | Outdoor type end termination kit    | 4 month from LOA date            | 6 month from<br>LOA date                 |
| 6    | Straight through Jointing Kit       | 4 month from<br>LOA date         | 6 month from<br>LOA date                 |
| 7    | Isolator                            | 5 month from<br>LOA date         | 7 month from<br>LOA date                 |
| 8    | Pin Insulator                       | 5 month from LOA date            | 7 month from<br>LOA date                 |
| 9    | Disk Insulator                      | 5 month from<br>LOA date         | 7 month from<br>LOA date                 |
| 10   | Post Insulator                      | 5 month from<br>LOA date         | 7 month from<br>LOA date                 |
| . 11 | LT Shackle Insulator                | 5 month from<br>LOA date         | 7 month from<br>LOA date                 |
| 12   | Rail Pole                           | 3 month from LOA date            | 5 month from<br>LOA date                 |
| 13   | Galvanised MS Structural steel      | 3 month from LOA date            | 5 month from<br>LOA date                 |
| 14   | Distribution Transformer            | 3 month from LOA date            | 5 month from<br>LOA date                 |
| 15   | Ring Main Unit                      |                                  | 4 month from<br>LOA date                 |
| 16   | GI Flat For earthing                | 1 111011111 11 0111              | 3 month from<br>LOA date                 |
| 17   | Cable Route markers & Joints marker |                                  | 9 month from<br>LOA date                 |
| 18   | Van mounted Cable Fault Locator     | 1 111011111 110111               | 9 month from<br>LOA date                 |
| 19   | Portable Distribution Transformer   |                                  | 5 month from<br>LOA date                 |
|      |                                     |                                  |                                          |

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|   |      |                                           | apply                                         |                          |
|---|------|-------------------------------------------|-----------------------------------------------|--------------------------|
|   |      | 20 LT panel for Distribution transformer  | 3 month from LOA date                         | 5 month from             |
|   | 1 2  | 21 LT feeder Piller                       | 5 month from                                  | LOA date 7 month from    |
| - | 2    | 2 LT Distribution Service Piller          | LOA date 5 month from                         | LOA date                 |
|   | 2    | 3 Street Light Panels                     | LOA dale                                      | 7 month from<br>LOA date |
|   | 24   |                                           | <ul> <li>5 month from<br/>LOA date</li> </ul> | 7 month from<br>LOA date |
|   |      | Lowning Material                          | 4 month from LOA date                         | 6 month from<br>LOA date |
|   | 25   | Steel Tubular Pole & Masts                | 5 month from<br>LOA date                      | 7 month from             |
|   | 26   | Pole Stays                                | 5 month from<br>LOA date                      | 7 month from<br>LOA date |
|   | 27   | ACSR Wolf Conductor                       |                                               | 7 month from<br>LOA date |
|   | 28   | ACSR Dog Conductor                        | 5 month from                                  | 7 month from<br>LOA date |
|   | 29   | ACSR Rabbit Conductor                     | 5 month from                                  | 7 month from<br>OA date  |
|   | 30   | ACSR Squirrel Conductor                   | 5 month from 7                                | month from<br>OA date    |
|   | 31   | PSC Pole                                  | 0.5 month from 2.                             | 5 month from             |
|   | 32   | Power Transformer                         | 3 month from 5                                | OA date<br>month from    |
|   | 33   | Vacuum Circuit breaker                    |                                               | DA datè<br>month from    |
|   | 34   | Control & Relay Panel                     | LOA date LC                                   | A date                   |
|   | 35 ( | Gapless lightning /surge Arrestor         | LOA date LO                                   | nonth from<br>A date     |
|   |      |                                           |                                               | onth from<br>A date      |
|   |      | Current Transformer/Potential Transformer |                                               | onth from                |



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RECORD NOTES OF DISCUSSIONS HELD BETWEEN SUBHASH PROJECTS AND MARKETING LIMITED (SPML) AND POWERGRID CORPORATION OF INDIA LTD., GURGAON, (POWERGRID) FOR CONSTRUCTION OF NEW LINES (33KV, 11KV AND LT), UNDERGROUND CABLE (33KV SUBSTATION IN PESU (WEST) CIRCLE OF BSEB UBDER APDRP PHASE-H

SPECIFICATION NO: C-45249-L968-3

Persons Present

#### POWERGRID

Shri A K Sharma

2 Shri J K Parihar

3 Shri & Das

4 Shri Manesh Sethi

#### SPML

- 1. Shri Ajit Mukhopadhyay (GM-BD)
- 2. Shri B K Das -Asitt Mgr (BD)

### **QUALITY & INSPECTION ISSUES**

- SPML proposed to procure bought out items (Non QR) from sub-vendors as per the list in 1.0 "Compendium of Suppliers" available on the POWERGRID www.powergridindia.com, which was agreed by POWERGRID. It is further agreed that SPML may also procure items form sub vendors who are approved for RE/APDRP projects of POWERGRID. In case any additional sub-vendor is proposed, the assessment. report of the SPML along with the enclosures as per Annexure-I shall be submitted by SPML within three month of the award. The proposal shall be reviewed and approval will be accorded based on the verification of the document submitted and/or after the physical verification of the works as the case may be.
- Annexure-II indicates the list of items/equipments in the scope of supply for the subject package. It also indicates requirement of approval of MQP (Manufacturing Quality Plan) by POWERGRID and Level of inspection envisaged against each item. In this regard POWERGRID explained the following:

Manufacturing Quality Plan (MQP): The Manufacturing Quality Plan (MQP) shall relate to the specific & objective manufacturing practices followed by manufacturer, right from procurement of raw material till final inspection & testing and shall be broadly subdivided as under:

- Raw material / bought out items and components.
- In process inspection and test/checks to establish successful completion/accomplishment of the process.
- Final test/checks in accordance with relevant national / international standards / specifications.

Inspection Levels: For implementation of projects in a time bound manner and to avoid any delay in deputation of POWERGRID Inspection engineer, involvement of POWERGID for inspection of various items / equipment will be based on the level below:

Pre-award discussion/SPMI, PESU WEST Spec.No. C-45249-S968-3

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Level -I: SPML shall raise all inspection calls and submit the report of carried out by the manufacturer, by his own, as per applicable standard specification, to concerned POWFRGRID inspection office, CIP "MICG will issued by POWERGRID based on review of test reports a certificates manufacturers.

Level – II: SPML to raise all inspection calls and carry out the same on behalf POWERGRID on proposed date of inspection. However, in case POWERGRID wishes to associate itself during inspection, the same would be intimated by SPML and CIP/MICC will be issued by POWERGRID. Else, SPML would submit their inspection test report—certificates and CIP / MICC will be issued by POWERGRID based on review of inspection—test reports / certificates.

Level - III: SPML to raise inspection calls for both stage (as applicable) and final inspection and carry out the stage inspections on behalf of POWERGRID on proposed date of inspection. However, in case POWERGRID wishes to associate itself during stage inspection, the same would be intimated to SPML. Else, SPML would submit their inspection test report / certificates of stage inspection and CIP will be issued by POWERGRID based on review of test reports / certificates. Final inspection will be carried out by POWERGRID in association with SPML and CIP / MICC will be issued by POWERGRID.

Level – IV: SPML to raise all inspection calls POWERGRID will carry out the inspection for both stage and final inspection in association with SPML and CIP / MICC will be issued by POWERGRID.

SPML confirmed having understood the above. SPML is requested to raise Inspection calls for all material irrespective of the levels (as given above) through Inspection Management System (IMS) on the internet well in advance. SPML shall than proceed further as per the message of that particular call which is available on the message hoard of IMS. SPML confirmed having understood the above. SPML shall dispatch the material after receipt of CIP clearance certificate from POWERGRID unless and until authorized otherwise by POWERGRID.

- 3.0 SPML confirmed that to implement the above inspection levels, particularly for the quality control and inspection at their sub-vendor's works, they would depute their sufficiently qualified & experienced manpower in their Quality Control and inspection department. Further, to assure quality of construction of sub-station, SPML agreed to have a separate workforce having appropriate qualification and experience for maintaining quality requirement during construction with applicable FQP (Field Quality Plan).
- 4.0 SPML confirmed that they shall ensure that in case, order is placed on a vendor whose MQP is either not valid or has not been approved by POWERGRID, the same shall be submitted as per POWERGRID format No.MR/QA&I/02 (copy enclosed as Annexure-III) within 60 days from date of LOA.

5.0 Items not covered under MQPs shall be offered for inspection as per POWERGRID LOA/technical Specifications/POWERGRID approved data sheets/POWERGRID approved drawings and relevant Indian / International standards.

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SPML agreed to furnish un-priced copy of purchase orders for bought out items within two fulk weeks of placement of award by them. It is the responsibility of SPML to ensure that all the requirements of POWERGRID as envisaged in Technical Specifications are incorporated in their Purchase Order placed on sub-vendors, well within the schedule of the project.

- POWERGRID shall have access to carry out Quality Audit/Surveillance on their and their sub-vendor's works with reference to contractual obligations to ensure that proper Quality ". Management practices / norms are adhered to:
- SPML confirmed that they shall be supplying various items as per requirements of technical 8.0 specifications and that they have not taken any deviation regarding quality matters, routine and acceptance tests as per specifications except those already discussed and agreed with POWERGRID Engineering during post-bid discussions. Any other deviations regarding Quality matters, routine and acceptance tests, explicit or implicit stand withdrawn.
- 9.0 SPML shall maintain separate register for all CIP and MICC issued by POWERGRID. For each issue of CIP/MICC a serial number will be given and it shall be recorded by inspection engineer on CIP clearance MICC.
- 10.0 The procedure for giving inspection call through internet (POWERGRID web site) was explained to SPML in detail and they agreed to follow the same. The inspection calls to be raised as per the Inspection Schedule, to be submitted by SPML matching with L2 network approved by POWERGRID. All inspection calls, overseas or indigenous, should strictly be raised in advance as per the time frame applicable to this contract in line with the bidding documents.
- 11.0 SPML will also ensure that relevant approved drawing and data sheets along with applicable Quality Plans, Standards etc. are available at the works of SPML or their Sub-vendor before the material is offered for inspection.
- SPML shall submit the Quality Assurance Programme in line with the requirement of Bid / 12.0 Technical Specification within 90 days from the date of LOA for POWERGRID's acceptance.
- Rework/ Re-engineering, if any, on any equipment shall be carried out only after mutual discussions and in accordance with mutually agreed procedure. SPML shall inform POWERGRID of the rework / re-engineering details along-with their proposal immediately upon detecting need for rework/re-engineering, failing which, POWERGRID reserves the right to reject the equipment.
- For transformer, testing of CRGO shall be conducted as per requirement of technical 1.0 specification, Quality Plan of POWERGRID and POWERGRID approved check list for inspection of prime quality CRGO for transformer. SPML agreed for the same.
- Transformer oil shall be transported from oil manufacturer's works to transformer manufacturer's works in tank/drums as per technical specification/POWERGRID approved MQP. In case transformer oil is transported in tank. POWERGRID approved procedure for "inspection- transformer oil supplied in tanker from oil manufacturer's to transformer manufacturer's "shall be followed. SPML agreed for the same.

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16.0 M/s SPML shall submit their Quality Assurance Program for Transformer which inter-alia include their organization structure and methodology for controlling quality of:

- a) Items manufactured in their own works.
- b) Items outsourced from sub-vendors.
- c) Site activities including civil & erection works.
- d) Welding and Brazing.
- e) Arresting Leakages.

Enclosure: Annexure - 1, 11 & 111

Pre-mount discussion SPAIL PEST WEST Space No. ( 15319-596.5-3 Page 4 of )

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#### Annexure-l

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Assessment report from Main contractor for proposed sub-vendor's along with following enclosures (to the extent available):

- 1. Registration / License of the works enclosed.
- 2. Evidence that the proposed sub-vendor is manufacturer of the item
- 3. Organization chart with name and qualification of key persons
- 4. List of Plant and Machinery along with process flow chart.
- 5. List of testing equipment to carry out all the routine tests in-house along with their ealibration status.
- 6. List of Raw material, bought out items with sourcing details
- 7. List of supplies nade to other utilities in last three years.
- 8. Third party approvai, if any (viz. ISO, BIS)
- 9. Copy of Quality Manual (if ISO certified)
- 10. Pollution clearance wherever applicable
- 11. Sanctioned load and Back up power/Shed area/Storage area
- 12. Formats for RM, in process and acceptance testing
- 13. Type test approvals conducted in last 5 years if applicable
- 14. Performance Certificates from customers
- 15. Company Brochure/ Product Catalogues
- 16. Photographs of factory, plant and machinery & testing facilities.

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|----------|-----------------------|---------|---------------------------------------------------------|-------------------|-------------|--------------|----------------|------------|
|          |                       | 1       | o.   Item / Equipment   Cable                           |                   | Requirement | MOR          |                |            |
|          | -  -                  | . 2     | Transformers                                            |                   | Yes         | 21 111 (1    | Inspection     |            |
|          |                       | 3       | Insulators (Disc/Pin/Post)                              |                   | Yes         |              |                |            |
|          |                       | 4       | Conductor Conductor                                     |                   | Yes         |              | . 1V           |            |
|          | " [                   | 5       | Insulators (LT/HTGuy/Shackle)                           |                   | Yes         |              | 111            |            |
|          |                       | 6       | Surge/Lighting Arrestor                                 |                   | No          | <del></del>  | 111            |            |
|          |                       |         | HG/DO Fuse set/Line Sectionliser (AE                    |                   | Yes         |              |                |            |
|          | L.                    | 7       | Switch)                                                 | 3                 | No          |              |                |            |
|          | 8 LT Distribution Box |         |                                                         |                   |             | Н            | -              |            |
|          |                       |         | Galvanised Structure material –V cros.                  |                   | No          |              | 11             |            |
|          |                       |         |                                                         |                   | No          |              |                |            |
|          |                       |         | arm, DP channel, DP channel clamp, s                    | SS                |             |              | 111            |            |
|          |                       |         | T THE THE STATE STATE OF THE THE                        | tay               |             |              |                |            |
|          |                       |         | I ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~                 | SS                |             | - 1          |                | 1          |
| _        |                       | ,       | 1 Supporting AB Switch channels.                        |                   |             |              |                |            |
| )        |                       |         | 1 Supporting (ISDS)Ormer State and I                    |                   |             | i            |                | -          |
|          |                       |         | Galvanised steel stranded wire for Guy,                 |                   |             | =            |                | - 1        |
|          | 1                     | 11      |                                                         |                   | No          |              | 11             |            |
|          | Ĺ                     |         | grounding/Preformed Inc. 1-1                            |                   |             |              | . "            |            |
|          | 1                     | 2       | Danger Plate / Phase Plate / Number Plate Circuit plate |                   |             | 1            |                |            |
|          |                       |         |                                                         |                   | No          |              | JJ.            |            |
|          |                       |         | Pipe type earthing & coil type earthing w               |                   |             |              | 11             | - 1        |
|          | -1:                   |         | accessories                                             | th                | No          |              |                |            |
|          | 14                    |         | Galvanised Bolts & Nuts                                 |                   |             |              | 11             | - 1        |
|          | 15                    | 2       | Proecting Gaurding (GI wire)                            |                   | No          |              | 11             |            |
| i        | 16                    |         | Clamps & Connectors                                     |                   | No          |              |                |            |
| - [      | 17                    |         | lardware fitting                                        | <u> </u>          | No          |              |                |            |
| - [      | 18                    |         | Conductor & Earth wire and                              | <u> </u>          | . No        |              |                |            |
| - 1      | 19                    |         | AS/GI/PVC/CI Pipe for cable trenches and                | :                 | No          |              | . 11           |            |
|          |                       |         |                                                         | 1                 | No          |              | · 11           |            |
| - 1      | 20                    | A       | IS/GI Flats, rod, and Earthing material,                |                   |             | 1.           | ,              | - 1        |
|          |                       |         |                                                         | :                 | No          | , .          | 11             |            |
| -        | 21                    |         | re-formed Jointing Stooks                               |                   |             | - 1          | **             |            |
| _        | 22                    | 10      | able Glands, lugs And tormination                       | i                 | No          |              | - 1            | <b>⊣</b> i |
| -        | 23                    |         | · · · · · · · · · · · · · · · · · · ·                   |                   | No          |              | <del></del>    |            |
| $\perp$  | 24                    | Ba      | orded wire/ACD/Bird Gaurd                               |                   | No          |              | <del>-  </del> |            |
| _        | 25                    | Ki      | kat fuse ( if applicable)                               |                   | No          |              | <u>''</u>      | <u> </u>   |
| <u></u>  | 26                    |         |                                                         |                   | No          |              | <u>''</u>      |            |
| <u>_</u> | 27                    | Ea      | rthwire (stranded if applicable)                        |                   | No          |              | 111            | - 3        |
|          | 28                    | Fo      | undation Bolts & Anchor Bolts                           |                   | Yes         |              |                |            |
| L_       | 29                    | Lig     | hting fixtures, switches & wires                        |                   | No          |              |                |            |
| _        | 30                    | Spr     | ing Washer                                              | ;                 | No          |              |                |            |
|          | 31                    | Rin     | Main Unit                                               |                   | No          |              |                |            |
|          | 32                    | VC      | 3                                                       |                   | Yes         |              | 11             | - 1        |
|          | 33                    |         |                                                         | į                 | Yes         | <del> </del> | 111            |            |
|          | 34                    | CT/     | nination/ Straight through jointing Kit                 |                   | No          |              | 111            |            |
| 3        | 5                     |         | ators                                                   |                   | Yes         | +            | II .           | 1          |
|          | 36                    | GI T    | ubular Pole                                             | -                 | Yes         | -            | IV ·           |            |
| .46.3    | 7.33                  | Striv   | fural Should and                                        |                   | Yes         | <del> </del> | IV             |            |
|          |                       | Route   | tural Steel (Lattice/Pipe type)  Marker                 |                   | Yes         | <del> </del> | IV             |            |
|          |                       | Rail F  | · Marker                                                |                   | No          |              | III            |            |
| 40       |                       | Batter  | OIG .                                                   |                   | No          |              | 11             |            |
|          |                       |         |                                                         | No                | 140         |              | 11             |            |
|          |                       | - \c-QN | and discussion/SPMI, PESU WEST/Sour No. C. J.           | . 7 . 44 . 43 . 4 |             | 11           |                |            |

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