सेकी SECI सूर्य सदैव SUN FOR EVER

सोलर एनर्जी कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उपक्रम)
Solar Energy Corporation of India Ltd.
(A Government of India Enterprise)
स्वच्छ भारत – स्वच्छ ऊर्जा

Original

Ref. No. SECI/C&P/SPD/RJ750/T-II/LoI/NTPC/**33212** Date: **16.09.2019**

To

M/s NTPC Limited
Engineering Office Complex Annex,
Plot No. A-8A, Sector-24, Noida,
Dist. Gautam Budh Nagar 201 301
Uttar Pradesh;

Kind Attn: Sh. Amitabh Saxena, AGM RE-BD

Letter of Intent

Sub: Selection of Solar PV Power Projects under RfS for setting up of 750 MW Grid-connected Solar PV Power Projects in Rajasthan (Tranche-II): Letter of Intent for Project of 160 MW (Project ID: SPD-STU-RJ750-T2-NTPCL–P1-160) at Village-Jetsar, Sri Ganga Nagar Dist., Rajasthan

Dear Sir,

Ref: This has reference to the following:

A. The "Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects" vide Gazette Resolution dated 03.08.2017 including its subsequent amendments and clarifications issued by Ministry of Power (MoP) (herein referred to as "Guidelines");

B. The Request for Selection (RfS) document vide RfS no. SECI/C&P/SPD/RfS/RJ-II/032019 dated 22.03.2019 including draft Power Purchase Agreement (PPA), draft Power Sale Agreement (PSA) and subsequent amendments/ clarifications/ revisions/ notifications issued by Solar Energy Corporation of India Limited (SECI) and uploaded during the process of RfS on TCIL portal (www.tcil-india-electronictender.com);

Solar Energy Corporation New Delhi

C. Your response to the RfS document submitted vide Bid Acknowledgement Receipt dated 04.06.2019 and uploaded on TCIL portal vide Organization ID (ETS-IN-2018-RS0002037) against RfS for Setting up of 750 MW Grid-connected Solar PV Power Projects in Rajasthan (Tranche-II) under Standard Bidding Guidelines ;

D. Your Bank Guarantee(s) towards Earnest Money Deposit (EMD) submitted along with RfS vide (i) BG No 1731319BG0000740 issued by State Bank of India, for an amount of Rs. 6,40,00,000/- (Rupees Six Crore Forty Lakhs Only).

E. Your Final tariff (INR/kWh) at the end of the e-Reverse Auction conducted on TCIL portal on 19.06.2019 for the referred RfS for selection of 750 MW Grid-connected Solar Power Projects in Rajasthan (Tranche-II).

In reference to above and subject to the provisions of RfS, we confirm having accepted your final offer concluded as a result of e-RA and issue this letter of intent as per the following details:

Allotted Project ID	Project Capacity (MW)	Project Location	Sub-station details for connectivity	Applicable Tariff (INR/kWh) in figures	Applicable Tariff (INR/kWh) in words
SPD-STU-RJ750-T2-NTPCL–P1-160	160	Village-Jetsar, Sri Ganga Nagar Dist., Rajasthan	132kV STU substations at Sri Vijaynagar and 2. 132kV STU substations Raisingnagar	₹ 2.50/-	Rupees Two and Fifty paise only

SECI shall purchase the power generated from the proposed Grid-Connected Solar Power Project under the above scheme subject to the following terms and conditions as stated in various documents referred above and briefly brought out hereinafter.

1.0 The applicable tariff as mentioned above for power generated from the proposed Solar Power Project for the term of Power Purchase Agreement (PPA) to be entered into between Project Company or the Solar Power Developer (SPD) and M/s SECI, for the Project, shall be firm for the entire term of the PPA.

1.1 The SPD will be free to avail fiscal incentives like Accelerated Depreciation, Concessional Customs, Excise Duties, Tax Holidays, etc. as available for such

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projects. No claim shall arise on SECI for any liability if the SPD is not able to avail fiscal incentives and this will not have any bearing on the applicable tariff.

1.2 The award of the above Project is subject to the Guidelines including amendments / clarifications issued by MoP/MNRE (Government of India) and terms and conditions of the RfS document including its clarifications/ amendments / elaborations / notifications issued by SECI.

1.3 No change in the controlling shareholding of the Bidding Company shall be permitted from the date of submission of response to RfS till the execution of the PPA. However, in case the Project is being set up by a listed Company, this condition will not be applicable. Controlling Shareholding (holding more than 50% of the voting rights and paid up share capital in the Company) of the Project Company of the SPD shall not change until One Year after the COD of the Project, except with prior approval of SECI. However, in case the Project is being set up by a listed Company, this condition will not be applicable.

1.4 The successful Bidder, if being a single company, shall ensure that its shareholding in the SPV/project company executing the Power Purchase Agreement (PPA), shall not fall below 51% at any time prior to 1 (one) year from the COD, except with the prior approval of SECI. In the event the successful bidder is a consortium, then the combined shareholding of the consortium members in the SPV/project company executing the PPA, shall not fall below 51% at any time prior to 1 (one) year from COD, except with the prior approval of SECI. However, in case the Project is being set up by a listed Company, this condition will not be applicable.

1.5 The SPD shall pay to SECI, Success Charges of Rs. 1 Lakh/MW/project + 18% GST within 30 days of issuance of this Letter of Intent (LoI), in line with Clause 12, Section-III of the RfS. Performance Bank Guarantee(s) for a value of @ Rs 20 Lakh/ MW shall be submitted by the SPD within 30 days of issuance of Letter of Intent or before signing of PPA, whichever is earlier, in line with Clause 11, Section-III of the RfS. In order to facilitate timely execution of PPA, SPD is requested to submit the success charges and PBG within 21 days of issuance of LoI.

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1.6 PPA will be executed between SECI and the SPD as per the breakup of the cumulative Project capacity awarded to the Bidder. This LoI is being issued in line with the Project breakup of the cumulative capacity quoted in the Covering Letter as part of your response to RfS and amended subsequently, as applicable.

1.7 The final project configuration, adding up to the cumulative capacity awarded to the bidder may be intimated to SECI at the time of signing of PPA, which shall then remain unchanged subsequent to signing of PPA. Delays in connectivity for the Project(s) on account of changes in Project locations, which differ from the details provided in the Covering letter, shall be at the risk and cost of SPD. The PPAs shall be valid for a period of 25 years from the scheduled commissioning date of the projects.

1.8 The SPD will have to submit the required documents as mentioned below to SECI within 21 days from date of this LoI or before signing of PPA, whichever is earlier. In case of delay in submission of documents beyond the timeline as mentioned above, SECI shall not be liable for delay in verification of documents and subsequent delay in signing of PPA:

1) Copy of the Certificate of Incorporation of the Solar Power Developer. (Applicable in case of Project(s) being executed by SPV)
2) The details of promoters and their shareholding in the SPD, duly certified by the practicing Chartered Accountant/ Company Secretary at least 7 (seven) days prior to date of their document submission (certificate date should be after the date of LoI) along with latest documents filed with ROC).
3) Copy of the Memorandum of Association (MoA) of the SPD highlighting the object clause related to generation of Power/ Energy/ Renewable Energy/ Solar Power plant development. (Applicable in case of Project(s) being executed by SPV)
4) Board resolution from bidding company to execute the project through SPV (if applicable) and for equity infusion (if required).
5) Copy of Board Resolution from SPV for authorization of signing of PPA and subsequent relevant documents.

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Further, the PPA shall be signed only upon receipt of the Success Charges and total Performance Guarantees of requisite value. The EMD submitted shall be released only after receipt and successful verification of the total Performance Bank Guarantee in the acceptable form.

1.9 SECI shall have the right to verify original documents of the SPD for which copies have been submitted from the date of submission of response to RfS till date, if required. PPA as per the format given along with RfS has to be signed within 30 days from the date of issue of LoI, if not extended by SECI. In case of unavoidable delays on the part of the SPD in submission of requisite documents prior to signing of PPAs or otherwise, the Effective Date of the PPA shall remain the date as on 30th day from the issuance of LOI, irrespective of the date of signing of PPA. In extraordinary cases of unavoidable delays on the part of SECI in signing the PPAs, the Effective Date of the PPA shall then be the date of signing of PPA.

1.10 In case, the SECI offers to execute the PPA with the SPD and the selected Bidder refuses to execute the PPA within the stipulated time period, the Bank Guarantee equivalent to the amount of the EMD shall be encased by SECI from the Bank Guarantee available with SECI (i.e. either EMD or PBG) as liquidated damages not amounting to penalty, and the selected Project(s) shall stand cancelled and the selected Bidder expressly waives off its rights and objections, if any, in that respect.

1.11 The SPD shall meet financial closure and demonstrate land arrangements for the Project in line with clause 15, Section-III of the RfS document, within 12 (twelve) months from the Effective Date of the PPA. Accordingly, the SPD shall furnish the documents pertaining to compliance of financial closure and land arrangements as per the above provisions.

1.12 The SPD/Project Company shall achieve commissioning of full capacity of the Project within 18 months from the Effective Date of the PPA as per the conditions stipulated in Clause 16, Section-III of the RfS and relevant articles of PPA. In case of failure to achieve this milestone, liquidated damages not amounting to penalty shall be levied on the SPD as per the above provisions.

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1.13 You are requested to make it convenient for signing of Power Purchase Agreement (PPA) as per clause 14, Section-III of RfS, failing which, provisions as per Clause 11 and Clause 14, Section-III of the RfS shall be applicable.

1.14 All disputes arising out of and/ or in connection with the selection of Solar Power Projects under the said RfS and execution of PPA thereto shall be governed by laws of India and shall be subject to the jurisdiction of Courts of New Delhi.

This LoI is being issued in duplicate and you are requested to kindly acknowledge receipt of this LoI by sending the duly stamped and signed duplicate copy of LoI to SECI within 07 days from date of this LoI.

Thanking you,

Yours faithfully,

For and on behalf of Solar Energy Corporation of India Limited

Solar Energy Corporation of India Ltd. New Delhi

(Biblesh Meena)
Deputy Manager (C & P)

SECTION -1

COMMERCIAL TERMS AND CONDITIONS

The order for Erection,Testing and Commissioning of 132 KV S/C SriVijaynagar- Jetsar (NTPC) transmission line (Approx. 12.50 Km.) under Deposit work of M/S NTPC on labour contract basis under BN-2010002004 is subject to the following commercial terms & conditions.

1.1 PRICES :

1.1.1 Prices given in the Schedule- I of Section-IV are for erection of Transmission line
1.1.2 Prices given in the schedules referred above, are firm.

1.1.3 Where the quantities not indicated, the work shall be carried out at the unit rates indicated in Schedule -II of Section-IV and the payment will be made accordingly with premium as per your offer in this bid .are exclusive of GST
1.1.4 The total value of the order based on the estimated quantity will be as per Schedule- I of Section-IV .
1.1.5 The prices given in the Schedule- II of Section-IV, exclusive GST but the payment will be made accordingly with premium as per your offer in this bid .are exclusive of GST

1.2 PRICE VARIATION :

No price variation is applicable in this case.

1.3 Taxes & Duties :

a) In accordance with the scope of works, this is a labour contract of erection from the "FREE ISSUE" material. However tax on such labour contracts if levied, shall be to the Contractor's account.

b) The rate quoted by the bidder is inclusive of all taxes but except GST (Goods & Service Tax) which are shown in BOQ.

c) The Rajasthan Rajya Vidyut Prasaran Nigam Ltd., is registered under GST law in the Rajasthan State vide No. 08AABCR8312A1ZT and all the provisions of the GST law related to supply of Goods and Services are applicable.

If it is statutory requirement to make any deductions towards taxes and duties, the same shall be made by the RVPN and a certificate as per statutory requirement for the same shall be issued to the Contractor.

d) Income Tax :

If any income tax, surcharge on income tax or any other corporate tax is attracted under the law then the same shall be paid by him as per Government rules / deducted from his bills / invoices at the prevailing rate and if such tax is not applicable, then the contractor can claim reimbursement of the same from the relevant competent authority. However necessary TDS certificate(s) shall be issued by Nigam's paying Authority.

e) Labour Laws :

Contractor Shall maintain a valid labor license under the contract labor (Regulation & Abolition Act) for employing necessary manpower required by him. In the absence of such license, the contract shall be liable to be terminated without assigning any reasons thereof.

The contractor shall require registration of workers with the Government under the Building & other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996

and extension of benefit to such workers under the Act. **Deductions of CESS at source will be made as per provisions of the said Act, in force from time to time.**

f) Royalty Tax :

In pursuance of the notification issued by Department of Mines, Government of Rajasthan vide circulars dtd.15.11.11, 18.10.12 & 09.01.13 regarding royalty determination and deposition of the same in the department of Mines & Geology, the Contractor shall be responsible for legitimacy of the civil material used in construction of the transmission line. The Contractor shall also be responsible for compliance of the instructions contained in the said circulars and further amendments if any. The payment of RA bills shall be made after ensuring compliance of the guidelines contained in the above circulars by the contractor. Short term permit (STP) must be taken by the contractor from Mining Department before start of the work. The Nigam will not be responsible for any delay payment for want of STP.

In case any liability/dues against royalty is finalized by the Department of Mines, GOR, the firm shall be fully responsible for payment of such dues to the Mining Department or the same may be deducted /recovered by the Nigam from the financial hold available under this contract or any other contacts of Nigam or its successor companies of erstwhile RSEB

1.4 PERFORMANCE SECURITY DEPOSIT :

a) In order to secure/assure the fulfillment of the contract, the successful bidder (s) upon receipt of preliminary acceptance letter/detailed purchase order as the case may be shall furnish within a period of **15** days a Performance Security deposit amount equivalent to 10% (Ten percent) of the contract value either by furnishing an undertaking for deduction of performance security from his each running and final bill @ 10% of the amount of the bill or by crossed Bank Draft or by way of Bank Guarantee from the scheduled Bank in the prescribed proforma to be obtained from the NIGAM on a Rajasthan state Non judicial stamp paper of appropriate value as required under the Rajasthan stamp duty Act duly authenticated by a Ist Class Magistrate or notary public or directly confirmed by the issuing Banker alongwith a certificate with regard to stamp duty. Such Bank Guarantee shall be valid upto a period of **14 months** from the date of commissioning of transmission lines (e.g. upto the last day of the calendar month) and if required by the NIGAM, the validity of the Bank guarantee shall be further extended for such period as desired. The B.G. is to be furnished in whole Rupees.

If the line is not commissioned at specified parameters but commissioned at reduced parameters due to reasons beyond the control of the contractor e.g non readiness of Gantry / GSS at the line emanating / terminating points etc. in those cases Such Bank Guarantee shall also be valid up to a period of **14 months** from the date of commissioning of transmission lines (e.g. up to the last day of the calendar month).

b) Unless otherwise specifically required to be retained/ forfeited by the NIGAM, the Performance Security deposit shall be **refunded on request of the contractor after twelve months** on completion of the entire work to the satisfaction of the NIGAM.

c) If the contractor fails or neglect to observe or perform any of his obligation under the contract, it will be lawful for the NIGAM to forfeit either in whole or in part at his absolute discretion, the Security deposit is the form of B.G. furnished by the contractor.

d) No interest shall be payable on such deposits. Bank charges or any other charges, if any, shall be to the Contractor's account. If the contractor fails to provide the Security within the period specified, such failure shall constitute a breach of the Contract and the NIGAM shall be entitled to make other arrangements at the risk and expenses of the contractor and the Earnest money deposited by the Contractor shall stand forfeited to the NIGAM.

1.5 TERMS OF PAYMENTS :

Payment for the erection of the line will be made to the contractor on submission of bills in accordance with the procedure as detailed below.

i) Payment equal to 100% (In case contractor furnishes Performance Security deposit by crossed Bank Draft or by way of Bank Guarantee) or 90% (In case contractor furnishes an undertaking for deduction of performance security amount from his each running and final bill @ 10% of the amount of the bill) of the total value of the works will be paid against monthly running account bills to be submitted to the A.EN (T&C.)Sriganganagar in-charge of the work.

ii) **Balance 10% payment will be made after the 12 months performance period is over and instructions for release of the RMD has been issued by the SE(T&C) as per clause No. 1.12 GUARANTEE or on furnishing of 10% performance bank guarantee.** The payment will be made only after a material account statement of items received and used or returned to stores is settled. Any discrepancy in the quantity, will have to be made good by the contractor or deduction of its cost at double the issue rate applicable at the time of issue of material will be made while settling the balance payment.

iii) If a firm supplying material to the RVPN or executing any work obtain finance from bank by way of discounting of the bills, in such cases RVPN shall not at all be responsible for arranging payments to banks nor shall bear any liability towards the bank in such cases. This is to safeguard interest of the NIGAM against the firms/suppliers taking advantage of bank finance.

iv)The payment of the running bills ,up to the work order value will be released without limiting to the individual quantity.

v) In case the survey work of the line is not completed in the period as mentioned in the bar chart , than 25% payment of subsequent R.A. bills as submitted by the contractor shall be deducted by the line incharge. Such deducted payment shall be released after completion of survey work by the contractor. However in case the delay in survey work is not attributable to the contractor than no deduction shall be made from the RA bill of the contractor.

Deduction, in respect of deficiencies etc. will be made by the AEN-Incharge while passing/verifying the bills and simultaneously be conveyed to the contractor.

The time schedule for verification /countersignature of all R.A. bills shall be as under.

	All R.A. Bills	Other Bills (PV, balance payment etc.)
a) Verification by AEN In-charge & submission to XEN.	7 days	10 days
b) Countersignature by XEN XEN & forwarding to AO(T&C).	3 days	7 days

1.6 PRESENTATION OF BILLS :

i) Bills for 100% or 90% (as the case may be) value of the erection work during each calendar month as per clause 1.5 shall be submitted to the A.EN (T&C) in-charge of the works at the end of that particular month, who will in turn process the same and forward it to X.EN(T&C) in-charge of the works for countersignatures and finally to the Accounts Officer(T&C) Hanumangarh for payment. These bills shall be serially numbered with suffix E-1.

ii) Bills for 10% value of the erection work done as per clause 1.5(ii) shall be submitted to the A.EN(T&C) in-charge of the works ,who will in turn process the same and forward it to X.EN(T&C) in-charge of the works for countersignatures and finally to the Accounts Officer(T&C) Hanumangarh for payment, these bills shall be serially numbered with suffix E-2.

iii) Price variation bills shall be submitted in triplicate to the A.EN(T&C) in-charge of the works at the end of that particular month,who will in turn process the same and forward it to X.EN(T&C) in-charge of the works for countersignatures . The original and

duplicate copies of this bill shall be forwarded Accounts Officer(T&C) Hanumangarh and one triplicate copy duly verified to the purchaser i.e., SE(T&C), Hanumangarh. The Accounts Officer(T&C) Hanumangarh will release the payment after getting approval from the purchaser .These bills shall be serially numbered with suffix E-3.

iv) All the bills (in accordance with above clauses) shall be furnished alongwith following information:

a) Itemwise work done during billing period, i.e., respective month

b) Cumulative work done itemwise.

c) Accounts for tower material, bolts-nuts and accessories consumed and balance stock.

d) Account of cement consumed, wastage and balance stock

e) Account of line material consumed, wastages and balance stock.

v)The payment shall be made within thirty days from the date of submission of complete document and completion of all contractual formalities as per requirement of the work order but in case of delay in payment purchaser shall not be liable to pay any interest on the outstanding amount to the contractor.

vi) The payment for survey, excavation, stub setting ,concreting & earthing shall be made without insisting for the insurance policy.

vii) Payment shall be made to the contractor through "Real Time Gross settlement System (RTGS) / National Electronic Fund Transfer (NEFT) for quick and safe transfer of funds across the country. The charges for transfer through RTGS/NEFT shall be on the part of contractor. In case order is placed, the contractor shall furnish particulars to the payment making authorities of RVPN in the prescribed format enclosed at Annexure-A with the purchase order.

1.7 QUANTITIES :

1.7.1 (a)The quantities in Schedule- I of Section-IV are provisional.
Final quantities shall be determined after completion of detailed route survey. You will have to carry out the work according to the quantities as determined at site at the quoted rates till the complete line is erected and the payment shall be made accordingly.
(b) For the items of erection -where quantities are not indicated in the Schedule- I of Section-IV , the payment for these items shall be made at the unit rates indicated in section IV of schedule-II and will be made accordingly with premium as per your offer in this bid .are exclusive of GST.

1.8 COMPLETION TIME :

The erection including various activities of the subject transmission line shall be completed within scheduled time as detailed here under.

The commencement of completion period shall be counted after 30 (thirty) days from the date of issue of Work Order.

The completion period - 4(Four) months (Inclusive of monsoon period) as per Section- IV Schedule- III

The Bar chart provided by RVPN is for the purpose of monitoring of progress of work only, however bar chart shall not be considered for calculation of price variation and penalty due to delay in work execution.

The time will be the essence of the contract and if the work is not completed on or before the guaranteed completion date as above or within any period of extension, if granted, you will be liable to a penalty as per Clause No. 1.11 of this order.

1.9 TAKING DELIVERY & TRANSPORTATION :

1.9.1 The prices given in Schedule I of Section –IV are inclusive of cost of transportation of tower material etc. from departmental stores, which are situated within the radius of 20 KMs from the route of the line on either side. The total weight of the tower shall be calculated as per approved bill of material including accessories. The prices given in Schedule-I of Section-IV are inclusive of cost of transportation of tower material etc. with a lead of 20 Kms, from departmental stores. The shortest lead shall be considered for the transportation through which vehicle/tractor can go to the site location

1.10. INSURANCE :

The contractor shall take suitable storage cum erection insurance policy for entire project at his own cost, the estimated cost of project for the purpose of insurance may be calculated as per the rates given in the Section-IV Schedule-VII.

The contractor shall also ensure the following

I) Contractor shall take storage cum erection insurance policies for entire project. However the insurance premium could be paid on installment basis, but it will be the responsibility of the contractor that the installments are paid well within the time. In case the insurance is on installment basis, the receipt of payment of each installment shall be submitted to SE(T&C)Hanumangarh, line in charge and AO(T&C)Hanumangarh by the contractor.

II) Deductible franchise should be minimum as per insurance rules. In case of any loss to the extent of deductible franchise, the same shall be borne by the contractor.

III) In case of contractor who have executed the work of at least one line in RVPN, stubs, SST &Earthing material will be issued in lots of 30 sets of stubs at a time for carrying out stub setting work without insisting for erection insurance. However insurance may be arranged by the contractor prior to issue of super structures and other line material to him and shall remain valid up to 30 days from the date of handing over of the line to the Engineer-incharge. Payment for survey, excavation, stub setting, concreting &earthling shall be made without insisting for insurance policy. However responsibility for any loss /damages will be to the contractor's account.

In case of new contractor insurance will be arranged by the contractor prior to issue of stubs, super structures and other line material to him and shall remain valid up to 30 days from the date of handing over of the line to the Engineer-incharge. Payment for survey shall be made without insisting for insurance policy.

IV) A policy indicating discount on account of "EXCESS" is not to be accepted.

V) Insurance policy shall be drawn in favour of the project indicating the full name of transmission line.

VI) Insurance policy shall be taken from Hanumangarh based office of nationalized insurance companies, however for the contractor whose office is situated outside the Rajasthan, the insurance policy may be taken from place where such office is situated.

VII) Insurance policy shall be in combined name of RRVPNL and contractor.

VIII) Computerized and stamped insurance policy shall be furnished by the contractor to the SE(T&C)Hanumangarh for its Acceptance.

IX) A copy of Computerized and stamped insurance policy shall also be furnished by the contractor to the line incharge who on receipt of its acceptance issued by SE(T&C)Hanumangarh, shall issue the line material. If line is not completed within the schedule completion time, the extension of insurance policy shall be arranged by the contractor. A part of the premium paid to the Insurance company for this extension, corresponding to the delay on the part of RVPN, shall be reimbursed to the contractor on finalization of time extension case. However part of the premium corresponding to the delay on the part of the contractor shall be borne by the contractor.

Deviation to this clause will not be acceptable. It is in the interest of contractor to take insurance policy for a longer period.

X) In case of up-gradation/modification of existing EHV transmission lines, the contractor may take section wise (instead for complete line/work) storage cum erection insurance policy. However, this section wise policy shall also remain valid up to 30 days from the date of handing over the section of line to the Engineer-incharge.

XI) The insurance policy should such that incase of any claim from insurance company, the payment shall be made to the RVPNL. However the reimbursement of insurance claim, if any, shall be settled at the time of finalization of MAS account.

1.11 PENALTY :

a) The time for and the date of completion specified in the work order shall be deemed to be essence of the contract and the work shall have to be completed not later than the period specified therein. Should the contractor fails to complete the work or any part thereof within the specified completion period, the NIGAM shall be entitled at his option.

(i) To recover from the Contractor, 1/2 % (Half percent) per week or part thereof for first four weeks and 1% (One percent) per week or part thereof for remaining period of delay (for unexecuted works) subject to maximum of 10% (Ten percent) with applicable GST.

(ii) After completion of the work the AEN (T&C)SriGanganagar in-charge of the works should submit to XEN(T&C) Hanumangarh and to the SE(T&C), Hanumangarh the detailed report indicating the delay in execution of the work activity wise on weekly basis.

(iii) To cancel the contract and if so desired to complete the erection works by other agencies at the risk & cost of the contractor.

1.12. GUARANTEE:

The erection work will be covered under guarantee period against any defect arising from erection workmanship up to a period of 12 months from the date on which the line is completed in all respects, handing over of operation & material account is settled to the satisfaction of the NIGAM. **The necessary instructions to release the P.B.G or RMD**

(10% amount) retained against Guarantee (as the case may be) will be issued by the SE(T&C)Hanumangarh.

1.13 CONTRACT AGREEMENT :

You shall have to execute the contract agreement within **15** days from the date of receipt of detailed work order in triplicate in the prescribed (Form-VII) on non-judicial stamp paper as per stamp duty applicable in Govt. of Rajasthan along with copy of work order, copy of Section-I (Instructions To Tenderer s), Section-II (General conditions of Contract including Erection), Section-II(A) (Commercial Terms & Conditions for Erection of Transmission Line) and Section-III (Technical Particulars). It is advised that each and every page of relevant documents are signed by authorized person with stamp.
It may however be ensured that the one copy of the work order and other Documents as above, are signed by an authorized person holding valid power of attorney. The power of attorney on non-judicial stamp paper of appropriate value which should be attested by the notary public. For this a copy of power of attorney in favour of person signing these documents, duly notarized in original be also submitted along with the above documents. The Indemnity Bond shall be furnish by the contractor with AEN(T&C)SriGanganagar on non-judicial stamp paper worth Rs.100.00

The receipt of above documents in order shall be notified by the Accounts Officer (T&C), RVPN, Hanumangarh in due course of time under intimation to this office. No any payment shall be released without acceptance of the contract agreement and completion of other contractual formalities. The line materials shall be given from Nigam's stores at different places indicated in Section-IV Schedule-IV. The line material shall be issued to the contractor only after furnishing of valid insurance policy and Indemnity Bond to the line in charge. The insurance policy shall be accepted by the SE(T&C) as per clause No.1.10 of this work order whereas Indemnity Bond shall be accepted by the line in charge

1.14 PRIORITY AND PERMITS :

The NIGAM shall render assistance in the matter of obtaining permits, licenses priorities, etc from Government and the local authorities for the controlled commodities required for erection work.

1.15 EXTENSION IN COMPLETION TIME :

Any delay due to stoppage of work by the NIGAM will be compensated for by way of extension of the completion date without price variation as per Clause 1.2 of this Work Order.

1.16 FORCE MAJEURE :

Force Majeure condition resulting into delay of erection work may please be informed to concerned ZONAL CHIEF ENGINEER (T&C), RAJASTHAN RAJYA VIDHYUT PRASARAN NIGAM LTD, within one month of occurrence.

1.17 TAKING OVER :

When the whole of the works have been completed and have passed all the tests on completion prescribed in the contract to the satisfaction of the Engineer-incharge. The Engineer-incharge shall issue to the contractor a taking over certificate as proof of the final acceptance of the line. Such certificate shall not unreasonably be withheld nor will the Engineer-incharge delay the issuance thereof on account of minor omissions or defects which do not affect the commercial operation and /or cause any serious risk to the transmission line. Such certificate shall not relieve the contractor of any of his obligation which otherwise become due by the terms and conditions of the contract. Contractor shall give an undertaking to finish any outstanding work expeditiously.

The line can be charged and taken over if the deficiencies do not materially affect the safety of the line and can be attended while the line is in charged condition. However, the deficiencies shall be jointly listed and intimated to the ordering authority.

1.18 WAY LEAVE, TREE CUTTING & OTHER OBSTRUCTIONS :

1.18.1 The NIGAM will arrange for right of way and clearance for other obstructions, however tree/crop cutting and corridor clearance as per IS 5613 Pt-II will be done by contractor at his own cost. Compensation for tree/crop if any shall be borne by the NIGAM. Proposals for 'Right of way' and clearance for other obstructions will have to be prepared and
submitted by you well in time. It will also be necessary on your part to instruct your labour and
staff to use minimum area while doing the work, where there are standing crops. No person should pick up any item from standing crops or fruits. You should take all possible steps to avoid & minimize damages to standing crops etc.

1.18.2 You should immediately notify any obstructions or hindrance, from local villagers or the local authorities in the execution of the work to the concerned Engineer Incharge and should not deal directly in the matter. The Engineer in charge will arrange to remove the obstacles as soon as possible.

1.18.3 For the clearances, permissions, removal of obstructions in way leave, etc. you should not remain contended by simply informing the NIGAM but shall invariably assist and arrange for personal follow up to overcome the difficulties in the interest of progress of the works.

1.18.4 The Contractor shall also identify the forest/non forest areas involved duly authenticated by concerned authorities.

a) A statement of forest areas with survey/compartment Nos.(all type of forest RF/PF/Acquired forest/Revenue forest/Private forest/Forest as per dictionary meaning of forest etc.)

b) A statement of non-forest areas with survey/compartment nos.

c) Tree cutting details(Girth wise & specie wise)

d) Marking of forest areas with category on topo sheets 1:2,50,000 showing complete line route, boundaries of various forest divisions and their areas involved.

e) Village forest maps of affected line and affected forest area and marking of the same.

f) Forest division map showing line and affected forest area.

1.18.5 The Contractor shall finalize the forest clearance proposal on the prescribed format duly completed in all respects for submission by the Employer to the Forest Department.

1.19 ACCESS TO LOCATIONS :

It will be your sole responsibility to take the materials upto the location required. Any pathway, temporary road, temporary bridge, required will have to be provided by the contractor at his own cost.. If for any reasons the above is not feasible, you shall have to arrange transportation by head loads at your cost.This is inconnection with the transportation of material only and if any compensation is required to paid for land (excluding construction) thus used. The same would be paid by the Nigam to different agencies directly or through the contractor.

1.20 DISTRIBUTION OF MATERIALS :

1.20.1 The contractor have to take delivery of tower and other materials directly from the NIGAM's store, and keep them in safe custody and transport to the respective tower erection site and will be responsible for any damage to or loss of all tower/line materials at any stage during transportation or erection. The materials that will be issued by the NIGAM will be in "as is where is" conditions at the stores center of the purchaser in the area during working hours.

1.20.2 The line materials shall be given from Nigam's stores The line material shall be issued to the contractor only after furnishing of valid insurance policy and Indemnity Bond to the line incharge. The insurance policy shall be accepted by the SE(T&C) as per clause No.1.10 of this work order whereas Indemnity Bond shall be accepted by the line incharge.

1.20.3 All the material shall be thoroughly checked before lifting from NIGAM stores. Once the material is lifted, no complaint for quantity or and quality will be entertained.

1.20.4 The empty drums of conductor and earth-wire shall be retained by the contractor. The cost of Rs.300 per empty drum of conductor and Rs. 100 per empty drum of earth wire will be deducted from the bills payable to the contractor with applicable GST.

1.20.5 On completion of the work, all surplus tower and line materials including the excess bolts and nuts, spring washers, plain washers, hangers, D shackles, anti-climbing devices, step-bolts, etc. and stub-templates shall be returned by the Contractor to the stores of the NIGAM as per the instructions of the Engineer-in-charge of the works at no extra cost to the NIGAM.

1.20.6 The Contractor shall submit the complete materials account immediately after the work is completed and in any case not later than 3 months of completion of the line. The MAS A/c shall be settled within one month from the date of receipt of MAS by the line incharge. A copy of M.A.S finalized by the line incharge will be provided by him to the purchaser for finalization of recovery towards MAS A/c (if any).

1.20.7 Recovery of all line material including tower material (on per MT basis) shall be effected at double the issue rate. The recovery of shortages of tower material shall be made only for short members/materials as per their weight with applicable GST.

1.20.8 All the surplus towers as mentioned above shall be returned to the purchaser, site Stores as per instruction of Engineer-in-charge of the works within one month of completion of towers erection. This includes unloading of tower material and stacking it as per instruction of the Engineer in-charge.

1.21 ELECTRICITY RULES :

You shall carry out all the works in accordance with revised and latest provision under Indian Electricity Acts and Rule made there under.

1.22 ERECTION TOOLS :

You shall arrange all types of erection tools required during the erection of line at your own cost. The NIGAM will issue adjustable Stub Setting Templates which you will have to return in good condition on completion of erection work.

1.23 WASTAGES :

1.23.1 The contractor shall make every efforts to minimize the breakages, losses and wastages of line materials etc. supplied "Free of Cost" by the NIGAM, for construction.

1.23.2 The maximum ceiling for wastages permitted is as under:

(a) For New line works

S. No.	Item	% Wastage Permitted(Max.)	Compensation payable for excess wastage with applicable GST
i)	Conductor and Earth wire	1%	Double the issued rate.
ii)	Insulators	1%	Double the issued rate.
iii)	Bolts-Nuts	2% (No extra bolts nuts will be supplied)	Double the issued rate.
iv)	Hardware & Accessories	1%	Double the issued rate.

(b) For Dismantling works

S. No.	Item	% Wastage Permitted(Max.)	Compensation payable for excess wastage with applicable GST
i)	Conductor and Earth wire	5%	Current Standard issue rate.
ii)	Insulators	As per actual, verified by line in-charge	
iii)	Bolts-Nuts		
	a) Dismantled bolts & Nuts not tack welded	2%	Current Standard issue rate.
	b)Tack welded dismantled bolts & nuts are to be deposited as scrap by weight bolts & Nuts	10%	Current Standard issue rate.
iv)	Hardware & Accessories	1%	Current Standard issue rate.
v)	Dismantling of tower members (as per actual at site verified by the line In-charge)	5%	Current Standard issue rate.

1.23.3 The erection contractor shall return to the NIGAM all the unused items. Conductor/ ground wire length(s) less than 20 metres will be treated as wastage, but would be required to be returned as far as possible. However, the erection contractor shall compensate the NIGAM at double the issued rate for the quantities exceeding permitted wastage and material not returned by the contractor with applicable GST.

1.23.4. All the wastages are accountable except for items(i) of clause No.1.23.2 The account of permissible wastages shall be maintained at site in the registers as prescribed by the Engineer-in-charge of works, which will be subjected to periodical checking by NIGAM's authorized representatives.

1.23.5 The account of wastages shall also be submitted on monthly basis (with running accounts bills) to the Engineer - incharge of works. The copy of R.A. bill shall also be submitted to the concerned Superintending Engineer (T&C) and the Chief Engineer (T&C) of the NIGAM.

1.24 PROGRESS REPORT :

1.24.1 Fortnightly progress reports of works & for status of material availability in duplicate shall be regularly submitted to the concerned Executive Engineer (T&C), Assistant Engineer (T&C) in-charge of works with a copy to Chief Engineer (T&C) Superintending Engineer (T&C). Progress review meeting with the contractor will be taken by SE(T&C) monthly and by CE/ ZCE(T&C) bimonthly. Minutes of such meeting shall be drawn and

will include progress of works, site constraints, material constraints, delay on part of RVPN/ contractor, other bottlenecks, instructions given decisions taken, agreed targets and views of both parties. Copy of these minutes shall be sent to SE(T&C), XEN concern and the Contractor.

Deficiencies in the work shall be communicated in writing to the contractor continuously and timely by all inspecting officers, and also taken up during progress review meetings.

Deficiencies which materially affect the safety and commercial use of the line will have to be attended by the contractor before the line is declared fit for charging or taken over.

1.25 INSPECTION :

Representative of Zonal Chief Engineer (T&C)/ Superintending Engineer (T&C/Q.C, Inspection & Monitoring) / Executive Engineer/ Engineer in-charge will be free to visit your site store and erection site. He will also be free to verify the NIGAMs material in your custody as and required. This shall be further governed by the Clause No. 11 of the "General Conditions of the Contract " Section-II.

1.26 EMPLOYEES PROVIDENT FUND :

You shall have to submit a certificate every month that your establishment covered under the employees provident fund and miscellaneous provisions act. 1952 and is having a separate code number with the Provident Fund Commissioner and also that the provident Fund contribution in respect of all the employees employed by you along with employer's share of contribution etc. is being deposited with the Provident Fund authorities and shall also submit certified photo copies of the challans of deposits. In absence of above, you shall be liable to deposit employees, as well as, Employer's contribution and other charges in respect of all the employees engaged by you for the said work with RRVPN LTD along with details of the employees, their wages and the amount of contribution as per RRVPN LTD CPF Rules every month. In case of failure, RRVPN LTD shall be entitled to deduct the amount as per prevailing norms from your bills .

1.27. DISPUTES:

i) All disputes, differences, questions, whatsoever arising between the NIGAM and Contractor upon or in relation to or in connection with the contract shall be deemed to have arisen at Hanumangarh (RAJASTHAN) only and no courts other than courts in Hanumangarh shall have jurisdiction to entertain the same.

ii) The RVPN has constituted the centralized standing committee for settlement of disputed claims under conditions of contract relating to RVPN.

The committee shall consider all cases for settlement of disputed claims relating to purchases, works, turnkey contracts and labour contracts, civil works etc. The committee shall also take decision whether a particular matter is required to be referred to the Board for approval before settlement. The matter for settlement shall only be referred to the centralized standing committee of RVPN by following the guide lines detailed below :

(1) Disputes will be referred contract wise.

(2) Disputes involving amount above Rs.1.00 lacs only will be referred / entertained.

(3) Non-refundable fee shall be deposited by the contractor / firm @ 2% of disputed amount as claimed by the contractor/firm subject to maximum fee of Rs.1.00 lac with applicable GST.
(4) In case of disputes , application for settlement (only in prescribed format) may be collected from the purchaser office.

The centralized standing committee fees shall be deposited in cash/ demand draft/ pay order with the Account Officer (T&C), RVPN, Hanumangarh and shall furnish receipt thereof with a request for referring their disputes to the centralized standing committee for decision.

For settlement, the firm shall furnish their application (only in prescribed format) indicating the details of dispute / grievances along-with requisite settlement fee **within a period of six months** after receiving communication from T&C Wing giving rise to cause of dispute / grievances.

1.28. CANCELLATION OF ORDERS

Order placed can be cancelled as per the decision of ZCE(T&C) RVPN,Jodhpur as per delegation of power or as per applicable provisions from time to time.

1.29. RISK AND COST :

If the contractor fails to complete the work or any part thereof within the specified completion period the NIGAM shall be entitled at his option to cancel the contract and if so desired to complete the erection works by other agencies at the risk and cost of the contractor.

1.30 GENERAL :

1.30.1 Stub Setting Templates will be supplied to you "free of cost" which shall be returned after the completion of work.

1.30.2 Anti climbing device, GI wire & clamps for counterpoise earthing, earthing pipe and strips for pipe type earthing shall be supplied to you free of cost by the NIGAM as per your requirement.

1.30.3 The terms and conditions as enumerated in the NIGAM's Tender Specification No. **RVPN/SE/T&C/HMH/BN-2010002004** to the extent not deviate in this order shall apply for execution of this contract.

1.30.4 Payment of excavation work shall be made on actual basis in cases where leveling / benching is required as per site conditions, before excavation, as per drawings.

(Er.V.P.Dhakar)
Superintending Engineer(T&C)
RVPN,Hanumangarh

SECTION - II

TECHNICAL TERMS & CONDITIONS FOR ERECTION OF TRANSMISSION LINES

This contract is subject to various technical terms and conditions for erection given below:

2.0 METHOD OF MEASUREMENT :

2.0.1 SURVEY :

No kilometric measurement shall be made at site in respect of survey. These measurements shall be based on the detailed survey tower spotting and route profile sheets submitted by the contractor as specified in Technical specification Section-III.

2.0.2 EARTHWORK EXCAVATION :

For all earthwork excavation, measurement shall be made at site. Payment for earthwork excavation shall be made as per actual measurements or the ceiling furnished in the bid whichever is lower and in accordance with the technical specification Section-III.

2.0.3 CONCRETING :

For all concreting work measurement shall be made at site. Payment for concreting work shall be made as per actual measurement or the ceiling quantity furnished in the bid whichever is lower and in-accordance with the technical specification Section-III.

2.0.4 TOWER ERECTION AND ASSEMBLY :

No measurements are to be taken, but payments shall be made in respect of fully assembled towers at the rates furnished in the bid and in accordance with the Technical Specification Section-III.

2.0.5 STRINGING OF CONDUCTORS :

Measurements shall be taken of the span lengths between different types of towers. Payments shall be made as per this span length and not on the length of the conductors used and in accordance with the Technical Specification Section-III.

2.1 ROAD AND RAILWAY CROSSING :

2.1.1 Standard tangent towers with double suspension strings and with reduced spans shall normally be used for all important road crossings.

2.1.2 On Railway crossings angle tower of type "B" or "C" or "D" shall be used on either side depending on the merits of each case, with double tension insulator strings.

2.1.3 The angle of Railway crossing shall be kept 90 as far as possible, but not less than 85. The angle of Highway crossing shall not be less than 60 . For river crossing, power line crossing and other crossings you shall comply norms mentioned in subject specification.

2.2. SURVEY & ALIGNMENT :

2.2.1 The route of these lines shall be as per the drawing to be approved by the NIGAM.

Proposal regarding alternative line route shall be submitted by the contractor to the line incharge. The line route shall be approved by the concerned S.E. within 15 days of submission of the proposal.

2.2.2. You shall make a check survey of the line route and submit profile and plan drawings showing each and every proposed structure position, length of spans in meters, clearances and type of structures required. These survey maps shall be prepared to the scale of 20 meters = 1 Cm. Horizontal and 2 meters = 1 Cm. Vertical.

Deviation point angles should be marked in degrees with Right or Left as the case may be. All Kutchha and metalled roads, trees , structures, wells , river railway, P&T lines, power lines crossings, ponds and other obstructions, etc. within 50 meters on either side of line routs should be clearly indicated. These maps should also indicated the profile and level of the proposed route and show the location of the towers with a ground clearance diagram.

2.2.3 Soil resistively along the route alignment, shall be measured in dry weather by four electrode method keeping inter-electrode spacing of 50 metres. For calculating soil resistivity formula 2 Pl.a r (where a=50 metres and r= megger reading in ohms ,Pl=3.14) shall be adopted. Measurement shall be made at every 2 to 3 Kms along the route of transmission lines. In case soil characteristics changes with 2 to 3 Kms the value shall also have to be measured at an intermediate location. The megger reading and soil characteristics shall also be indicated in the soil resistivity results. No extra payment will be made to the contractor on this account.

2.2.4 Before commencing the check survey you will get from the Engineer in charge of the works all the data that have been collected of the proposed route of transmission lines, which will be marked on blue prints or typographical sheets, while making the detailed survey if any better route is found or the route requires alteration due to crossing of roads, telegraph lines, power lines, river and canal crossings, etc. or due to other considerations such as avoiding aerodromes, village limits avoiding tanks or reservoirs, etc. you should survey the alternative route at no extra cost. The line route shall be furnished by the contractor and shall be approved by the concerned Superintending Engineer .

2.2.5 On completion of the final survey and profiles you should submit approved copy of final survey and profiles to the concerning Superintending Engineer (T&C),Hanumangarh before commencement of diggings of pits. When the route and profiles are finally approved, no alteration shall be allowed without written consent of the concerning Superintending engineer (T&C),Hanumangarh and lines shall be constructed exactly according to the approved survey. If any subsequent alteration is found necessary, you shall to submit full details of such an alteration with justification and obtain approval of the concerning Superintending Engineer (T&C) Hanumangarh before carrying out the work. You will be responsible for any in accuracies that may arise when finally locating the towers at site and should rectify such in accuracies at your own cost.At the starting point of the commencement of route survey, an angle iron spike of 65x65x6 mm section and 1000 mm long shall be driven into the ground to project only 150 mm above the ground level. A punch mark on the top section of the angle iron shall be made to indicate location of the survey instrument. Teak wood peg 50x50x650 mm size shall be driven at prominent position at intervals of not more than 750 meter along the transmission line to be surveyed upto the next angle point. Nails of 100 mm wire should be fixed on the top of these pegs to show the location of instrument. The pegs shall be driven firmly into the ground to project 100 mm only above ground level. At angle position stone/concrete pillar with RVPN marked on them shall be put firmly on the ground for easy identification

2.2.6 STUB SETTING AND FOUNDATIONS:

a) The contractor shall be fully responsible for correct setting of stubs in accordance with approved methods at the exact locations and alignments and in precisely correct level. Stub setting templates to be supplied by the NIGAM should be used for proper setting of stubs. The contractor will be responsible for constructing the foundations in accordance with the approved design of each type of foundation.

b) The foundation work including stone revetment, concrete or earth filling above ground level wherever necessary and stacking and tamping on the site of all surplus excavated soil. Surplus stone should be stacked within the tower base.

c) The payment for excavation will be limited to the volumes as per approved excavation drawings even though the contractor may excavate more for the sake of his own convenience. If the excavated depth is more than the depth shown in the approved drawings, the additional depth should be filled in with lean concrete (1:4:8) at contractor's cost in respect of materials, labours etc.

2.3 EXCAVATION AND CONCRETING :

2.3.1. Excavation & Concreting Volumes :

2.3.1.1. The guaranteed excavation and concrete volumes for different types of soils shall be as per the drawing & design to be made available by the AEN (Incharge) of work.

2.3.2 Classification of Soil :

a) Normal Dry Soil :
The soil readily removable with ordinary spades, pick axe and shovels and to be used for location in normal dry cohesive or non cohesive soils of any colour.

b) Soft Rock :

Where decomposed or fissured rock, hard gravel, kankar, lime stone, literate or any other soil of similar nature is met, undercut type foundation is to be used for soft rock locations. The ultimate safe bearing capacity of soil should be 45000 Kg/m2.

c) Hard Rock :
To be used at locations where chiseling, drilling, blasting is required. The ultimate safe bearing capacity of soil should be 65600 Kg/m2.

d) Wet Soil :

i) Where sub soil water is met at 1.5m, or more below ground level.
ii) Where surface water for long period with water penetration not exceeding one metre below the ground level e.g. the paddy fields.

e) Fully Submerged Soil :
Where sub soil water table is met at less than 0.75m, below ground level and upto complete depth of foundations.

f) Partially submerged soil :
To be used at locations where the sub soil water table is met between 0.75 metre to 1.5 metre below ground level, the top portion of strata being normal dry soil.

g) Murram /Hard soil/Dense Soil:

Generally any soil which requires the close application of picks or jumpers to loosen, such as stiff clay, gravel and cobble stone.

2.3.3. Composite Soil:

Guidelines for adopting various types of foundation in composite soils.

2.3.3.1 Composite soils. On the locations where composite soils are likely to be accounted excavation shall be done very carefully. The width of the normal soil excavation should be maintained till the layers of soil mentioned under normal soil classification are encountered. If the layers of soil other than classified under normal soil are encountered excavation width shall be restricted to minimum till normal soil foundation depth is reached.

2.3.3.2 Where soil is of composite nature , classification of foundation shall be according to the type of soil predominant in the footing and payment shall be made accordingly.

2.3.3.3 After the excavation of all the four pits for the tower, the Engineer in charge of the work or Engineer nominated by the Zonal C.E. (T&C) from head office shall decide the type of composite soil foundation to be adopted for the particular location. For this purpose the contractor shall offer 8 to 10 locations at a time.

2.3.4. General on Excavation :

2.3.4.1 The rates for wet/submerged soil are applicable to all locations, which will be classified as wet/submerged including partially or fully submerged

locations by actual condition. If for the above case, the soil requires shoring, shuttering and/or dewatering etc. they will be carried out at no extra cost to the NIGAM.

2.3.4.2 The volumes of excavation to the paid for In reply to: chimney and pyramid type foundation will be the volume as per foundation drawings plus 150 mm. on all sides to allow the workers to work in side the pit subject to maximum as per the guaranteed excavation volumes indicated in the drawing.

2.3.4.3 The volumes of excavation for submerged foundation will be paid for on the basis of the volumes actually excavated or worked out from the approved drawings, whichever is lower.

2.3.4.4 In addition to all the above, whenever shuttering or shoring in necessary, the same will be done at no extra cost to the NIGAM.

2.3.4.5 Whenever the necessity arises for leveling of soil, building revetment for dry stone or random stone revetment or concrete revetment or brick masonry with cement, these works shall be paid to you at the relevant rates as per Schedule 1(B).

2.4 CONCRETE :No wastage is permitted for cement and reinforcement steel as cement and reinforcement steel is to be procured by the Contractor.

2.11.2 No price variation shall be applicable on reinforcement steel& cement to be procured by the Contractor.

2.11.3 The cement required for foundation shall be purchased by the contractor at his own cost. The contractor shall use any one of the following cement make or any other equivalent make as approved by the concerned SE(T&C).

(a) VIKRAM
(b) BINANI
(c) BIRLA UTTAM
(d) SHREE CEMENT
(e) J.K.CEMENT

The quality of cement shall be as per IS 8112-1989 (43 grade ordinary Portland cement specification).

In case of non-availability of 43 grade OPC cement, contractor can use 53 grade OPC (IS:12269) in place of 43 grade OPC. The contractor can also use PPC (Portland Pozzolana Cement – IS : 1489) with the permission of concerned SE(T&C).

The steel required for R.C.C shall be purchased by the contractor at his own cost.The contractor shall use any one of the following steel make or any other equivalent make as approved by the concerned SE(T&C).

(a) TATA
(b) JSW
(c) SAIL

2.4.1 Standards

2.4.1.1 Except where otherwise specified or implies, the concrete shall confirm to the provisions of IS 456-1978(as amended up to date)

2.4.1.2 The cement required for foundation shall be purchased by the contractor at his own cost. The contractor shall use any one of the following cement make or any other equivalent make as approved by the concerned SE(T&C).

(a) VIKRAM
(b) BINANI
(c) BIRLA UTTAM
(d) SHREE CEMENT
(e) J.K.CEMENT

The quality of cement shall be as per IS 8112-1989 (43 grade ordinary Portland cement specification).

In case of non availability of 43 grade OPC cement, contractor can use 53 grade OPC (IS:12269) in place of 43 grade OPC. The contractor can also use PPC (Portland Pozzolana Cement - IS : 1489) with the permission of concerned SE(T&C).

2.4.2 The cement consumption for different types of concrete shall be considered as follows.

For 1:2:4 mix- 6.5 Bags per Cum.

2.4.3. If any layer of lean concrete is required to be used as per the approved design the consumption of cement shall not exceed :-

For 1:3:6 mix :- 4.5 Bags/m3
For 1:4:8 mix :- 3.5 Bags/m3
For 1:1.5:3 mix:-8.2 bags/m3

The per bag weight of cement must be 50 kgs.

2.4.4 The sand shall be of the best quality containing hard siliceous materials, clean and of sharp angular grit type and free from earth or organic matter or salts and to the satisfaction of the Engineer incharge. No salty or brackish water shall be used for concreting.

2.4.5 The course aggregate shall be of the best quality to the satisfaction of the Engineer in charge and broken to a maximum size of 20 mm. It should also be free from grit and dirt.

2.4.6 The mixture of concrete to be used shall be such as to produce a sound compact and water proof concrete and shall not be weaker than 1:2:4 ratio with 20mm. stone metal for chimney and 20 mm for pyramid and slab. The concrete shall be machined mixed only and shall be as stiff as the requirement of placing the concrete in the form of moulds with case and degree to which concrete resists segregation. Hence, the quantity of water used should not be too much.

The concrete shall be mixed in a mechanical mixer. However, in case of difficult terrain hand mixing may be permitted at the discretion of Engineer-Incharge.

2.4.7 The dimensional drawing of Form Boxes shall be got approved from RRVPN LTD. Proper forms or moulds adequately braced to retain proper shape while concreting, should be used for chimney or pyramid and slab portions. Form boxes should be water tight so as not to allow cement cream to come out leaving concrete. Form boxes should be cleaned and oiled before using for concreting. Form Boxes should be made out of M.S Sheet having adequate thickness for handling.

2.4.8 All wet locations must be kept completely dewatered both during the placing of concreting and for 24 Hrs. after completion. There should be no disturbance of concrete by water during this period.

2.4.9 Form boxes should not be removed before 24 hours after concreting. Concrete surfaces where required should be set right with rich cement and mortar immediately after removal of the forms.

2.4.10 After 24 hours of pouring, the concrete should be cured by keeping it continuously wet for 14 days. Within 48 hours of pouring, the pit may be back filled with selected/ excavated earth which is free from grass, dung, woods, shrubs, thorn etc. sprinkled with necessary amount of water and well compressed & consolidated layers not exceeding 150mm. Thereafter both the exposed top and the fill shall be kept wet for the remainder of the prescribed curing time. Extra ordinary care should be taken during back filling.

The Engineers of the contracting parties at site shall ensure that the back filling done in the manner referred above so that the back filled earth becomes homogeneous with the surrounding parent soil with the passage of the time.

The Engineers of the contracting parties shall record the day/date of back filling and jointly authenticate it for correctness in the register.

The Zonal Chief Engineer (T&C) at his sole discretion may uncover any case foundation to find out the workmanship of foundation. You shall render necessary assistance during such fact finding operation.

2.4.11 Payments for the quantity of excavation and concreting for each type of tower shall be made on pro-rata basis of actual work done subject to the maximum of guaranteed volumes as per the approved drawings to be furnished by the NIGAM.

2.4.12 Adequate quantity of Form boxes for all types for chimney & pyramid shall be prepared by you as per approved foundation design, drawings at your cost.

2.4.13 The reinforcement steel be procured by the contractor. No price variation shall be allowed on steel so supplied. The steel required for RCC shall be purchased by contractor at his own cost the contractor shall use any of the following steel make.
i)TATA
ii)JSW
iii)SAIL

3.2.6TOWER SPOTTING:

With the help of approved sag template and tower spotting data, tower locations shall be marked on the profiles. While locating the towers on the profile sheet the following shall be borne in mind:

a) Span:

The number of consecutive spans between the section points shall not exceed 15. A section point shall comprise of tension point with DB type or DC type or DD type tower as applicable.

b) Extension:

An individual span shall be as near to the normal design span as possible.In case an individual span become too short with normal supports on account of undulations in ground profile, one or both the supports of the span may be extended by inserting standard body extension designed for the purpose according to technical specification.

c) Loading:

There shall not be any upward force on suspension towers under normal working conditions and the suspension towers shall support at least the minimum weight span as provided in the designs. In case uplift is unavoidable, it shall be examined if the same can be overcome by adding standard body extensions to the towers failing which tension towers designed for the purpose shall be employed at such positions.

d) Road crossing:

At all important road crossings, the towers shall be fitted with normal suspension or tension insulator strings depending on the type of towers but the ground clearance at the roads under maximum temperature and in still air shall be such that even with conductor broken in adjacent span, ground clearance of the conductor from the road surfaces will not be less than 7.015 meters. At all national highways tension towers with double insulator string on crossing side shall be used. The crossing span however will not exceed 250 meters in any case.

e) Railway crossing

All the railway crossings coming reroute the transmission line have already been identified by the NIGAM. At the time of detailed survey ,the railway crossings shall be finalized as per regulation laid down by the Railway Authorities . The following are the important features of the prevailing regulations (revised in 1987).

i) The crossing shall be supported on DB or DD type tower on either side depending on the merits of each case and Double tension insulator string shall be used on both the towers on the side of the crossing.

ii) The crossing shall normally be at right angle to the railway track.

iii) The minimum distance of the crossing tower shall be at least equal to the height of the tower plus 6 meters away measured from the center of the nearest railway track.

iv) No crossing shall be located over a booster transformer, traction switching station traction sub-station or a track cabin location in an electrified area.

v) Minimum ground clearance above rail level of the lowest portion any conductor under condition of maximum sag shall be maintained at 15.40 meters for 220kV lines and 14.60 meters for 132kV lines at conductor temperature of 75 degree C.

The approval for crossing the railway track shall be obtained by the NIGAM from the Railway Authority however six copies of profile and plan tower and foundation design and drawings required for the approval from the Railway Authority shall be supplied by the Contractor to the NIGAM.

f) River crossing:

In case major river crossing towers shall be of suspension type and the anchor towers on either side of the main river crossing shall be "DD" type tower. Clearance required by navigation authority shall be provided. For non-navigable river clearance shall be reckoned with respect to highest flood level (HFL)

g) Power Line Crossing:

Where this line is to cross over another line of the same voltage or lower voltage DA/DD type tower with suitable extensions shall be used. Where the line is to cross under the 400 KV power lines gantries shall be used. Provisions to prevent the possibility of its coming into contact with other overhead lines shall be made in accordance with the Indian Electricity Rules,1956. In order to reduce the height of the crossing towers it may be advantageous to remove the ground wire of the line to be crossed (if this is possible and permitted by the Owner of the line to be crossed) All the works related to the above proposal shall be deemed to be included in the scope of the Contractor except if modifications are required to line below, in which case, the conditions to be agreed upon.

h) Telecommunications Line Crossing

The angle crossing shall be as near to 90 deg. as possible. However deviation to the extent of 30 deg. may be permitted under exceptionally difficult situations. When the angle of crossing has to be below 60 deg. the matter will be referred to the authority incharge of the telecommunication system. On a request from the contractor, the permission of the telecommunication authority may be obtained by the purchaser. Also in the crossing span power line support will be as near the telecommunication line as possible to obtain increased vertical clearance between the wires.

i) Details Enroute:

All topographical details permanent features such as trees building etc. 17.5 m on either side of the alignment shall be detailed on the profile plan.

3.2.7 Before commencing the check-survey, the Contractor will get from the Engineer-incharge of the works all the data that have been collected of the proposed routes of the transmission line, which will be mark on blue prints or topographical sheets. While marking the detailed survey if any better route is found free of roads, telegraph lines, power lines, river and canal crossings, etc. or due to other considerations such as avoiding tanks or reservoirs, etc. the contractor should survey the alternative route at no extra cost. Final approval to the route will be accorded by the concerned Superintending

Engineer(T&C) RAJASTHAN RAJYA VIDHYUT PRASARAN NIGAM LTD,HANUMANGARH.

The successful bidder shall carry out all the erection works in accordance with tower spotting data, structural & foundation drawings, provided by the NIGAM.

3.2.8 On completion of the final survey, the Contractor should submit one tracing and three blue prints copies of final survey along with soil investigation report to the Chief Engineer(T&C),and one blue print to SE (T&C) before commencement of digging of pits for foundation. When the route and profiles are finally approved by the concern S.E.(T&C), no alternative shall be allowed without written consent of the SE(T&C)and the line shall be constructed exactly according to the approved survey. If any subsequent alternation is found necessary, the Contractor shall have to submit full details of such an alteration with justification and obtain approval of the SE(T&C), before carrying out the work. The contractor will be responsible for any inaccuracies that may arise when finally locating the towers at site and should rectify such inaccuracies at his own cost

2.4.14 **Protection of Tower Footing**:

a) The work shall include all necessary stone revetments, concreting and earth filling above ground level and the clearance from stacking on the site of all surplus excavated soil, special measures for protection of foundation close to or in nallahas, river bed hilly/undulated terrain etc. by providing suitable revetments or galvanized wire natting and meshing packed with boulders. The top seal cover of the stone revetments shall be done with M-150 concrete (1:2:4 mix). The details of protection of tower footing are given in drawing enclosed with the specification for reference purpose only.

Location where revetment are to be provided shall be identified by the AEN line incharge during the course of stub setting . The approval for such proposals of revetment shall be arranged by concerned SE(T&C) and shall be conveyed to the contractor up to the completion of stub setting activity . The contractor shall be liable to do the revetment work if intimated up to the completion of stub setting activity.

b) The quantity of excavated earth obtained from a particular location shall generally be utilized in back- filling work in protection of tower footing of same location, unless it is unsuitable for such purpose, in the later case, the back filling shall be done with borrowed earth of suitable quality irrespective of lead, as per the rate provided in the letter of award. The consolidation of earth shall however be done after backfilling free of cost.

2.5 ERECTION OF TOWERS:

2.5.1 Treatment of Minor Galvanizing Damage In case any minor damage to galvanizing is noticed, the same shall be intimated to Line-Incharge.

2.5.2 Assembly
The method followed for the erection of towers shall ensure the points mentioned below.

a) Straining of the members shall not be permitted for bringing them into position. It may however be necessary to match hole position at joints and to facilitate this, tommy bars not more than 450 mm long may be used.

b) Before starting erection of an upper section the lower section shall be completely braced and all bolts provided and tightened adequately in accordance with approved drawings to prevent any mishap during tower erection.

c) All plan diagonals relevant to a section of tower shall be placed in position before assembly of upper section is taken up.

d) The bolt position in assembled towers shall be as per IS:5613(part-II/Section.2)/1976.

e) All blank holes, if any left, after complete erection of the tower, are to be filled up by bolts and nuts of contract size.

2.5.3 Tightening and punching of Bolts & Nuts.

2.5.3.1 All nuts shall be tightened properly using correct size spanners. Before tightening, it will be ensured that filler washers and plates are placed in relevant gaps between members, bolts of proper size and length are inserted and one spring washer shall be placed under each nut, and in case of step bolts, spring washers have been placed under the outer nuts. The tightening shall progressively be carried out from the top downwards, care being taken that all bolts at every level are tightened simultaneously. The threads of bolts projecting outside the nuts shall be punched at three position on the diameter to ensure that the nuts are not loosened in course of time. If during tightening a nut is found to be slipping or running over the bolt threads, the bolt together with the nut shall be replaced.

2.5.3.2 The threads of all the bolts projected outside the nuts shall be welded with the nuts at two diametrically opposite placed. The length of each welding shall be at least 10 mm . The welding shall be provided from ground level up to bottom cross arm level after welding cold galvanized paint (Zinc rich paint) having at least 90% (percent) zinc contents shall be applied to the welded portion. At least two coats of the paint shall be applied. The cost of welding and paint including application of paint shall be deemed to be included in the erection price.

2.5.3.3 Standard tangent towers with reduced spans shall normally be used for all important road crossings.

2.5.4 Tower erection shall include erection of all accessories like danger plate, number plate, phase plate, C.I. plate, Anti-climbing devices and fittings including attachments for step bolts, ladders, platforms, 'U' bolts, D-shackles, hangers strain plate, etc. and punching of bolts and nuts so that towers are complete in all respects.

In case if danger plate ,number plate and phase plate (per set of three) is not provided to the contractor during tower erection then deduction of Rs.5/-per item shall be made by the line - incharge. If these items are arranged by RVPN before commencement of stringing activity then the contractor shall be liable to fix these accessories on respective tower and deducted amount on this account shall be verified for payment by the line incharge.

The contractor shall only punch the bolts used for fixing these accessories by chamfering the threads with centre punch at least at three places equally spaced on contact surface of bolts and nuts, if these plates are issued to the contractor after completion of tack welding work of that particular tower.

2.5.5 Rates offered for erection of towers, super structure and footings shall be irrespective of final weights of towers.

2.5.6 Erection Of Special Structures:

2.5.6.1 The per MT tower rates as per unit rates for special structures will be applicable to all structures other than normal tower.

2.5.6.2 The rates of stringing for regular flowing river crossing section shall be on per km. basis i.e. for distance from one special tower to other erected on both the ends of river bed.

2.5.7 Dismantling of Existing Towers :

a) The method for dismantling of the existing towers is left to the Contractor subject to the responsibility for any damage done to the material and human life due to any cause.

b) The existing towers with extensions shall be dismantled up to the ground level by the Contractor after ensuring the destringing of conductors and earth wire from the towers.

c) While dismantling the towers, it will be the responsibility of the Contractor that none of the tower members should be damaged / bent.

d) Contractor is required to stack the tower material, member wise and dismantled nuts & bolts size wise at site for the purpose of counting of the dismantled material. The tack welded bolts & nuts which are to be cut are also required to be deposited as scrap by weight. However, a wastage of 10% shall be allowed for these items.

e) Dismantled tower members and nuts & bolts have to be transported by the Contractor by his own vehicle from site to the designated store within 20 Km and handed over to the store in- charge duly stacked member wise in the store.

f) The cost of the dismantling of towers shall include the weight of tower member, nuts & bolts and all accessories as per the actual material of towers available at site. The shortages and wastage shall be allowed to the Contractor for this work as per provisions mentioned in 1.24.2(b).

2.6 GROUNDING:

2.6.1 It is necessary that in no case tower footing resistance should be more than 10 Ohms during dry weather. The tower footing resistance shall be measured jointly before and after earthing is done and register shall be maintained for each location.

2.6.2 Pipe Type Earthing:

2.6.2.1 At locations where footing resistance does not exceeds 10 Ohms the pipe type earthing as per drawing approved by the NIGAM would be followed. You will have to supply all materials required for grounding including salt, fine broken coke/charcoal, finally by using augur and making a bore hole for insertion of pipe away from the tower leg excavation line.

2.6.3 Counterpoise Earthing :

2.6.3.1 In places of high resistivity soil conditions, counterpoise earthing shall be adopted as per the drawing approved by the NIGAM to bring down the tower footing resistance below 10 ohms. The length of G.I. Wire shall be 15 meter for each leg. The counterpoise earthing shall be burried 500mm below ground level and for this purpose some space should be left over in chimney coping portion at the time of stub setting. Coping should be completed after installation of counterpoise earthing . In case of rocky terrain, the counterpoise earthing have to be embedded at a depth of 100 mm.

2.6.3.2 The galvanized stranded wire shall be of the size 7/3.15 mm.

2.6.3.3 The record of footing resistance shall be maintained in consultation with Engineer in charge before and after providing of suitable earthing.

2.7 INSULATOR HOISTING:

2.7.1 Suspension insulator strings shall be used in all tangent type towers with deviation upto 2 deg. and tension insulator strings on all small, medium, large angle and dead end type towers on all lines.

2.7.2 Insulator strings shall be assembled on ground. These shall be cleaned and examined for hair Cracks. Chips or defective Glazing (not exceeding half centimeter square) and then hoisted by careful handling. The work will include fitting of all hardwares and fitting in their proper place and order.

2.7.3 Technical particulars of conductor, earthwire and insulator strings are indicated in Clause No. 3.13.1 of Tender Specification No. **RVPN/SE/T&C/HMH/BN-2010002004**

2.8 STRINGING OF CONDUCTOR & GROUND WIRE:

2.8.1 Before commencing of stringing work, you must obtain copies of approved sag tension charts showing initial and final sags and tensions for various temperature and spans.

2.8.2 You shall be responsible and will take care of proper handling of drums from stores to site. Sufficient numbers of aluminium snatch blocks shall be used for paying out the ACSR Conductors.
Necessary precautions shall be taken to avoid conductor rubbing on the ground by providing adequate ground rollers on supports. Additional rollers shall also be provided to cross thorny edges, fencing, and other obstructions to avoid scratching of conductor. The conductor and groundwire shall be made to sag correctly as per stringing charts before they are finally transferred to the hardwares for conductors and to clamp for groundwire . No joint should be made at less than 30 meters from the tower and that no joint shall be permitted in Railway, River and Road crossing spans. There shall not be more than one joint in a span of each conductor. All conductors shall be stressed to their maximum working load at the time of stringing, as per approved stringing chart. The minimum clearances between the lowest point of conductor and ground shall not be less than 7000mm in case of 220KV lines and 6100 mm in case of 132KV lines.

All compression joints should be carefully made and a record of initial and final lengths of the joints, jointly signed by you and NIGAM's representatives, used is maintained. Dynamometers of proper range shall be used in tensioning the conductors, check for sag should also be made at intervals when conductor are drawn up. Over stressing causing damage to towers should be avoided. Care should be exercised not to over tension the conductor. An extra sag of 150 mm should be allowed at all important tension points like Railway and River crossings.

2.8.3 After being pulled the conductor/ground wire shall not be allowed to hang in the stringing sheaves for more than 72 hours, before being pulled to the specified sag. During the time the conductor/ground wire is on the stringing sheaves before sagging in, it shall be ensured that the conductor/ ground wire is not damaged due to wind, vibration, vehicles or other causes. Scaffolding should be used to cross the important roads and Railway crossings for minimum interruption to traffic.

2.8.4 The conductor shall be pulled upto desired sag and left in aerial stringing sheaves for at least one hour after which the sag shall be re-checked and adjusted. If necessary, before dipping stringing sheaves to the suspension clamps.

2.8.5 Conductors shall be clamped within 24 hours of sagging in. The sag will be checked in the larger spans of the section in case of sections up to eight spans and in one intermediate span also for section with more than eight spans.

2.8.6 The stringing sheaves, when suspended on the transmission structure for sagging, shall be so adjusted that the conductor will be on the sheaves at the same height as the suspension clamps to which it is secured.

2.8.7 The stringing of ground wire shall be done in accordance with the stringing charts approved by the NIGAM. The ground wire of size 7/3.15 mm shall be strung to run continuously over the conductors. The ground wire shall be pulled, sagged and clamped in from tension tower to tension tower before the phase conductors are pulled in that section.

2.8.8 All the line conductors shall be terminated at sub station structures whose details shall be furnished by the NIGAM at the appropriate time. You shall fix strain insulators on the sub-station structures.

2.8.9 Armour rods and vibration dampers shall be fitted at each suspension towers before final clamping of conductor with insulator strings. Vibration dampers are to be fixed using aluminium taps with each clamping bolt and in correct vertical position in relation to conductor. Compression type joints are to be used for jointing of conductors. Each part connected with joints shall be perfectly cleaned by wire brush and properly greased before final compression. All the joints of conductors and earth wire shall be made in the best workmanship manner and shall be perfectly straight and having maximum possible strengths. Vibration Dampers shall be fixed on each location on ground wire also.

2.8.10 Stringing work includes hoisting the insulators, fixing hardwares, fitting armour roads and vibration dampers, making joints, repair sleeves etc. All stringing tools special or otherwise should be arranged by you at your cost.

2.8.11 While stringing on tower on tension and dead end towers extra care should be taken to equalize the tension on either side. Wherever necessary suitable guys shall be provided on the other side to avoid accident and damage to tower & foundation.

2.8.12 For stringing of one circuit of a Double Circuit line (Whose one circuit is already charged), works like hoisting of insulator string, laying, jointing & tensioning of conductor, clamping with armour rods & fixing of vibration dampers etc. will have to be carried out without shutdown of other circuit. Shutdown will be allowed on the day of final stringing as well as during rough sagging.

2.8.13 Destringing :

Method of destringing is left to the Contractor subject to the responsibility for any damage done to the material and human life due to any cause. The Contractor is permitted to make the bundles of conductor / earth wire up to lengths of 300 meters. The complete destrung conductor / earth wire along with the insulators, hardware, etc will be required to be deposited in the departmental stores (within 20 kM) and handed over to the store in-charge in the store. However, % wastage shall be allowed as per provisions mentioned in 1.24.2 (b).

2.9 TESTING & COMMISSIONING :

2.9.1 The contractor shall ensure that at the end of each sub-activity, the surplus materials is immediately removed from the work site to avoid loss and injury to the public.

2.9.2 You will ensure after completion of erection work that all works connected with line having been completed correctly as per Indian Electricity Rules and procedure. Any extra cost involved due to incompleteness of work or bad workmanship found out subsequently shall be set right forth with by you at your own cost.

2.9.3 After the erection is completed in all respects, the line should be thoroughly patrolled and checked for continuity and clearances. The line should be meggered to check its insulation level. It should be ensured to the Engineer in charge that the line is clear and free from men and materials and is fit to be charged. If on charging, the line is found not to hold, you should arrange to patrol the line and find out the causes for the tripping and rectify the defect at no extra cost to the NIGAM.

2.10 GENERAL :

2.10.1 The other technical particulars indicated in the **Specification No. RVPN/SE/T&C/HMH/BN-2010002004** which are not reproduced in this section but which have been accepted by you in your offer, are applicable to this contract in toto.

(Er.V.P.Dhakar)
Superintending Engineer(T&C)
RVPN, Hanumangarh

BAR-CHARTS FOR CONSTRUCTION OF LINE AGAINST BN-2010002004

Construction of 132kV S/C Srivijaynagar - Jetsar (M/S NTPC) transmission line

Completion Period:- 04 Months

Activity	Ist Month	IInd Month	IIIrd Month	IVth Month
Survey				
Stub setting				
Tower erection				
Stringing testing & commissioning				

Note:- 55

1. Survey includes route approval, survey profiling & check survey.
2. Contractor shall comply the above Bar Charts

3. There will be one month time for mobilization of resources in addition to the above mentioned completion time.

RVPN
An ISO 9001:2015 Certified Company

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED.

[Corporate Identity Number (CIN):L40109RJ2000SGC016485]
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e-mail:;www.rvpn.co.in

No. RVPN/SE(P&P)/XEN-I /AE-I/ F. /D 199 Jaipur, Dt. 16/6/2020

The Zonal Chief Engineer (T&C),
RVPN, Jodhpur.

Sub: Administrative & financial Sanction (A&FS) for construction of 132kV S/C Raisingh Nagar- Jetsar line (19.5kM), 132kV S/C SriVijainagar- Jetsar line (12.5kM) [as deposit work of M/s NTPC) alongwith 132kV feeder bays at 132kV GSS Raisingh Nagar& 132kV GSS SriVijainagar (as augmentation work) for providing connectivity to 160 MW Solar Power Project of NTPC at Jetsar.

Ref.: - i) Your case file no. 3930 dated 07.01.2020.

On the above subject and reference, administrative and financial sanction of the Whole Time Directors of RVPN under DOP item No. 1(a) is hereby conveyed for construction of 132kV S/C Raisingh Nagar- Jetsar line (19.5kM), 132kV S/C SriVijainagar- Jetsar line (12.5kM) [as deposit work of M/s NTPC) alongwith 132kV feeder bays at 132kV GSS Raisingh Nagar& 132kV GSS SriVijainagar (as augmentation work) for providing connectivity to 160 MW Solar Power Project of NTPC at Jetsar; having total estimated cost as per the estimates send with your case file dated 07.01.2020 of which the details are given hereunder:

S. No.	Name of the work	Project Definition in SAP	Project Code in SAP	Mode of execution	Estimated cost (In Rs.)
1.	132kV feeder bay at 132kV GSS Raisinghnagar	132kV NPTC bay at 132kV SS Raisinghnagar	AUCB/20.09	Deprtmental work under Augmentation head	121.57 lacs
2.	132kV feeder bay at 132kV GSS Srivijainagar	132kV NPTC bay at 132kV SS Srivijainagar	AUCB/20.10		96.29 lacs
3.	132kV S/C Raisinghnagar-Jetsar (M/s NTPC) line (19.5kM)	132kV S/C Raisinghnagar-Jetsar NTPC line	CLIN/20.04	As deposit work	612.51 lacs
4.	132kV S/C Srivijainagar-Jetsar (M/s NTPC) line (12.5kM)	132kV S/C Srivijainagar-Jetsar NTPC line	CLIN/20.05		417.41 lacs

The above A&FS has been issued subject to the deposition of the connectivity charges by M/s NTPC for the works sanctioned as augmentation work and also deposition of complete estimated amount for the work sanctioned as deposit works. No procurement action and construction activities shall be started untill M/s NTPC deposit the connectivity charges amount to the SE (NPP&RA), RVPN, Jaipur.

The expenditure of the works mentioned at sr. no -1 & 2 shall be made from provision made under the head **"Augmentation"** in Annual Plan. Additional funds required (if any) under this head would be provided in revised budget estimates (RBE) in Annual Plan at the time of revision of the same.

Any charges on account of TDS and Income Tax etc. applicable for deposit works will be on party's account. Goods and Service tax @18% is included in the estimates, however, the same shall be charged as per actual charges in vogue.

Further, it is adviced that various clauses of the order no. –RVPN/AAO/ F&R/ F. 2(Pt-X)/ D. 28 dated 08.05.2019 (RVPN F&R No- 1277) circulated [for deposit works] and RVPN/CCOA/ Estt-Cont./ F. 51/ D. 455 dated 22.02.2008 (RVPN control document No- 135) [for augmentation works] shall strictly be followed for various deposition of application fee/ specifications/ guidleines for clearnces & estimate preparation/ execution of the work/ finalization of the accounts etc.

The technical sanction of the above work may be issued at your end.

(Sudhir Jain)
Superintending Engineer (P&P)

Copy to the following for information and necessary action:

1. The Chief Controller of Accounts, RVPN, Jaipur.
2. The Chief Engineer (Procurement), RVPN, Jaipur.
3. The Superintending Engineer (Design/ Procurement-I/ Procurement-II), RVPN, Jaipur.
4. The Superintending Engineer (T&C), RVPN, Hanumangarh.
5. The Superintending Engineer (NPP&RA), RVPN, Jaipur for needfule in the matter.
6. The Accounts Officer (T&C), RVPN, Hanumangarh.

Superintending Engineer (P&P)
O/C

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED
Corporate Identity Number (CIN) : L40109RJ2000SGC016485
Regd. Office : Vidyut Bhawan, Jyoti Nagar, Jaipur- 302005

OFFICE OF THE ZONAL CHIEF ENGINEER (T&C)

New Power House, Jodhpur Telephone/Fax No.0291-2741764
Website: www.rvpn.co.in, Email: zce.jodh@rvpn.co.in

No. RVPN/ZCE/T&C/JU/S. / F. / 2020/D. 733 **Dt.** 14/7/2020

The Superintending Engineer (T&C)
PNL Hanumangarh.

Sub : Technical Sanction for Construction of 132kV 132kV S/C Raisingh Nagar-Jetsar line (19.5 Km), 132kV S/C SriVijaynagar-Jetsar line (12.5 Km) **[as deposit work of M/s NTPC]** along with 132kV feeder bays at 132kV GSS Raisingh Nagar & 132kV GSS SriVijaynagar **(as augmentation work)** for providing connectivity to 160MW Solar Power Project of NTPC at Jetsar.

The Technical Sanction of the following estimates is hereby accorded Technical Sanction for Construction of 132kV 132kV S/C Raisingh Nagar-Jetsar line (19.5 Km), 132kV S/C SriVijaynagar-Jetsar line (12.5 Km) **[as deposit work of M/s NTPC]** along with 132kV feeder bays at 132kV GSS Raisingh Nagar & 132kV GSS SriVijaynagar **(as augmentation work)** for providing connectivity to 160MW Solar Power Project of NTPC at Jetsar. The details of the work are as under:-

S. No.	Name of Work	Project Definition in SAP	Project Code in SAP	Mode of execution	Estimate Cost (Rs. In lacs)
1.	132kV feeder bay at 132kV GSS Raisinghnagar	132kV NTPC bay at 132kV GSS Raisinghnagar	AUCB/20.09	Departmental work under Augmentation head	121.57
2.	132kV feeder bay at 132kV GSS Srivijaynagar	132kV NTPC bay at 132kV GSS Srivijaynagar	AUCB/20.10		96.29
3.	132kV S/C Raisingh Nagar-Jetsar (M/s NTPC) line (19.5 Km)	132kV S/C Raisinghnagar-Jetsar NTPC line	CLIN/20.04	As deposit work	612.51
4	132kV S/C SriVijaynagar-Jetsar (M/s NTPC) line (12.5 Km)	132kV S/C Srivijaynagar-Jetsar NTPC lline	CLIN/20.05		417.41

The Administrative and Financial Sanction of the Whole Time Director of RVPN under DOP item (c) for afore said work has been conveyed vide letter no. RVPN/SE(P&P)/XEN-I/AE-I/F. /D. 199 dt. 16.06.2020 of SE (P&P), RVPN, Jaipur (copy enclosed) .

The above Technical Sanction has been issued subject to the deposition of the connectivity charges by M/s NTPC for the works sanctioned as augmentation work and also deposition of complete estimated amount for the work sanctioned as deposit works. No procurement action and construction activities shall be stared until M/s NTPC deposit the connectivity charges amount to the SE (NPP&RA) RVPN, Jaipur.

The expenditure of the works mentioned at Sr. no.-1 & 2 shall be made from provision made under the head "Augmentation" in Annual Plan.

Any charges on account of TDS and Income Tax etc. applicable for deposit works will be on party's account. Goods and Service tax @18%, Shutdown charges, statuary charges are included in the estimates; however the same shall be charged as per actual charges in vogue.

Further it is to advised that various clauses of the order no. RVPN/AAO/F&R/F.2(Pt-X)/D. 28 dt. 08.05.2019 (RVPN F&R No. 1277) circulated for deposit works and RVPN/CCOA/Estt-Cont./F. 51/D. 455 dt. 22.02.2008 (RVPN control document no. -139) for augmentation works shall strictly be followed for various deposition of application fee/specifications/guidelines for clearance & estimate preparation/execution of the work/finalization of the accounts etc.

After completion of the scheme, if total actual cost of the scheme exceeds by 10% to the project cost, revised administrative and financial sanction of the scheme will be required.

The above Technical Sanction is accorded under DOP item no. 2(a).

All other codal formalities as per Nigam rules may be ensured prior to execution of the work.

Encl : As above.

(B. P. CHOUHAN)
ZONAL CHIEF ENGINEER (T&C)
RVPNL, JODHPUR

Copy to the following for information please.

1. The Regional Chief Accounts Officer, RVPNL, Jodhpur.
2. The Assistant Engineer (P-Cell), O/o ZCE (T&C), RVPNL, Jodhpur.

ZONAL CHIEF ENGINEER (T&C)

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED

[Corporate Identity Number (CIN): L40109RJ2000SGC016485]
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OFFICE OF THE SUPERINTENDING ENGINEER (T&C) HANUMANGARH

220 KV GSS Colony Premises Hanumangarh, Website: www.rvpn.co.in, E-mail ID- se.tnc.hmgh@rvpn.co.in

No: RVPN/SE/T&C/HMH /Sec.Tech/F. /D. 1619 Date. 3/2/2020

To

Zonal Chief Engineer (T&C)

RVPN,Jodhpur

Subject: Regarding submission of revised technical estimate for construction of various works under deposited work of NTPC

Reference:-Letter No. 744 dated 31.01.2020 of XEN (T&C) RVPN, Hanumangarh

On the above cited subject and reference kindly find enclosed herewith the revised technical estimate which was prepared on the basis as per SIR 2020 and G-Schedule of the following works

1. Construction of 132KV, S/C Raisinghnagar - Jetsar transmission line for Jetsar Solar (19.5KM)
2. Construction of 132KV, S/C Srivijaynagar - Jetsar transmission line for Jetsar Solar (12.5KM)
3. 132KV feeder bay at 132KV, GSS, Raisinghnagar
4. 132KV feeder bay at 132KV, GSS, Srivijatnagar

The case has already been submitted by this office to accord AFS from competent authority of RVPN which is under process now SIR has been revised. As such the SE (P&P) RVPN Jaipur has desired the revised technical estimate as per SIR 2020.

The revised estimate for both the line has been prepared as per F&R-1277 because the work will be executed by RVPN under deposit work of NTPC.

The revised technical estimate for 132KV feeder bay at 132KV,GSS,Raisinghnagar and Srivijaynagar has been prepared as per order No.455 dated 22.02.2008 because the work will be carried out by RVPN and the cost of work also be borne by the RVPN.

Hence the revised technical estimate of both the line and both 132KV feeder bay are being submitted for your kind recommendation and also requested to submit same to SE (P&P) RVPN, Jaipur for further necessary action please.

(Er. V. P. Dhakar) 03/02/20.
Superintending Engineer (T&C)
RVPN Hanumangarh

Copy submitted to The SE (P&P) RVPN, Jaipur for kind information and further necessary action please.

(Er. V. P. Dhakar)
Superintending Engineer (T&C)
RVPN Hanumangarh

(1)

Technical Estimate for 132 KV S/C Raisinghnagar - Jetsar (19.5 KM) (Under Deposit Work)

S.No.	Particulars	Amount (In Lacs)
1.1	**Cost of work**	
(i)	New Work Estimate(As per 1.2)	446.90299
(ii)	Dismantling Work Estimate(As per 1.3)	0.00000
(iii)	Shifting work estimate(As per 1.4)	0.000
	Total (i) to (iii)	446.90299
(iv)	**Over Head Charges 15 % on sum of (i),(ii) &(iii)**	67.03545
	Total(i to iv)	513.93844
(v)	**Amount to be paid for shutdown of RVPNL Lines/Buses as prescribed Rate/Charges(if applicable)**	0.0000
(vi)	**Amount to be paid for Railway as per prescribed RateCharges (if Applicable)**	0.000
(vii)	**Statutory Charges/ FEE required for the forest clearance, Railway & Highway crossing, raod cutting & restoration, shut down charges etc. & any crop compensation/ ROW related charges if any etc. @ 1% on sum of (i),(ii),(iii) &(iv)**	5.13938
	Total (i) to (vii)	519.07782
(viii)	**GST 18 % On total of (i to vii)**	93.43401
(ix)	**Cost of material/item to be reused in shifting work**	0.00
(x)	**Total cost Estimate**	612.51183

(Rs. Six Crore Tweleve Lacs Fifty One Thousand One Hundred Eighty Three only)

IT IS CERTIFIED THAT :-

1. The Technical Estimate has been prepared as per order No. RVPN/AAO/F&R/F.2 (Pt. IX)D. 28 Jaipur Dated 08.05.2019.

ASSISTANT ENGINEER(T&C)
RVPNL, SRI GANGANAGAR

EXECUTIVE ENGINEER(T&C)
RVPNL, HANUMANGARH

Arithmatically checked & found correct.

S.E. (T&C)
HNGN

03/02/20

OFFICE OF THE ASSISTANT ENGINEER(T&C)
RRVPNL,SRI GANGANAGAR

Technical Estimate for LILO of 132 KV S/C Rai Singhnagar - Jetsar Transmission line for Jaitsar Solar (19.5 KM.)

Sr. No.	Particulars of Items	Unit	SAP code	Quantity	Rate (In Lacs)	Amount (In Lacs)
1.1	**Cost of Work**					
1	**132 KV D/C Tower**					
a	TTC Stub only	Set	2300000027	1	0.18920	0.18920
b	TTD Stub only	Set	2300000032	2	0.35139	0.70278
c	TTC Super Structure	Nos.	2300000028	1	2.70568	2.70568
d	TTD Super Structure	Nos.	2300000033	2	3.82629	7.65258
2	**132 KV S/C Tower**					
a	TTA Stub only	Set	2300000038	52	0.07867	4.09084
b	TTB Stub only	Set	2300000502	6	0.10283	0.61698
c	TTC Stub only	Set	2300000503	4	0.12441	0.49764
d	TTD Stub only	Set	2300000504	8	0.15358	1.22864
e	TTA Super Structure	Nos.	2300000039	52	1.32782	69.04664
f	TTB Super Structure	Nos.	2300000382	6	1.59387	9.56322
g	TTC Super Structure	Nos.	2300000383	4	1.54499	6.17996
h	TTD Super Structure	Nos.	2300000384	8	2.12096	16.96768
3	**Extension 132 KV D/C Tower**					0.00000
a	6 meter to TTC	Nos.	2300000026	1	1.06594	1.06594
b	6 meter to TTD	Nos.	2300000031	2	1.21145	2.42290
4	**Extension 132 KV S/C Tower**					0.00000
a	3 Meter to TTA	Nos.	2300000035	5	0.26587	1.32935
b	3 meter to TTB	Nos.	2300000040	2	0.31468	0.62936
c	3 meter to TTC	Nos.	2300000477	1	0.30981	0.30981
d	3 meter to TTD	Nos.	2300000479	3	0.42694	1.28082
e	6 meter to TTA	Nos.	2300000036	2	0.59153	1.18306
f	6 meter to TTD	Nos.	2300000480	1	0.90163	0.90163
5	**Conductor H/W for Panther**					0.00000
a	D/T H/W Line Type	Set	8000000164	24	0.02775	0.66600
b	S/T H/W Line Type	Set	8000000170	102	0.01233	1.25766
c	S/S H/W Line Type	Set	8000000169	158	0.00683	1.07914
d	D/S H/W Line Type	Set	8000000218	18	0.02109	0.37962
e	M.S. comp. joint	Nos.	8000000107	42	0.00393	0.16506
f	Repair sleeve	Nos.	8000000184	10	0.00164	0.01640
g	Vibration Damper	Nos.	8000000152	450	0.00359	1.61550
h	PA Rod	Nos.	8000000109	156	0.00523	0.81588
6	**ACSR Panther Conductor**	Km.	2200000010	60	1.46858	88.11480
7	**OPGW Cable (24 Fibre)**	Km.	2000000030	19.5	1.36021	26.52410
8	**OPGW Accessories**					
a	Installation H/W Set for 24 Fibre	Set	2000000018	16	0.30378	4.86048
b	Joint Box 24 fibre	Nos.	2000000064	16	0.06363	1.01808

9	Disc Insulator					
a	70 KN Disc Insulator	Nos.	2000000096	1800	0.00350	6.30000
b	120 KN Disc Insulator	Nos.	2000000088	1800	0.00502	9.03600
10	Pipe type Earthing set	Set	2000000622	73	0.02831	2.06663
11	G.I. Nuts& Bolts					0.00000
a	16x35mm	MT	8000000316	6	0.93880	5.63280
b	16x40mm	MT	8000000317	5.5	0.93880	5.16340
c	16x45mm	MT	8000000318	2.5	0.93880	2.34700
d	16x50mm	MT	8000000319	2	0.93880	1.87760
e	16x55mm	MT	8000000320	1.5	0.93880	1.40820
f	16x60mm	MT	8000000321	1	0.93880	0.93880
g	16x175mm step bolt	MT	8000000263	2.5	1.00359	2.50898
12	G.I. Spring Washer	MT	8000000264	2	1.33281	2.66562
13	Number Plate (1 to 73)	Nos.	2300000524	73	0.00081	0.05913
14	Danger Plate	Nos.	2300000523	73	0.00204	0.14892
15	Phase Plate (RYB)	Set	2300000525	73	0.00078	0.05694
	Cost of Material					295.28744
	Cost of Work					
	Cost of material / equipments					295.28744
	Cost of Actual civil works with 14 % above preimum (Including GST)					111.67625
	Cost of Actual Labour charges with 14% Above Premium (Including GST)					39.93930
	Total (i) to (ii)					446.90299
	Grand Total					446.90299

(Rs. Four Crore Forty Six Lacks Ninty thousand Two Hundred Ninty Nine Only)

IT IS CERTIFIED THAT :-

1. The rate from S.No. 1 to 6 & 9 to 15 have been taken as per latest SIR 2020 vide order No. RVPN/CE(Proc.) /TA /Issue rate/D 495 Dated 16.01.2020
2. The Technical estimate has been prepared as per latest circular of competent authority vide Lt. no -: RVPN\AAO\F&R/f.2(pt-x)/d.28/Jaipur DT-08.05.2019
3. The G-Schedule of above mentioned work has been prepared with 14% preimum as per work order was issued to M/s Purkha Ram Choudhary for construction of 132 KV S/C Amarpura -thedi Line. The Copy of work order placed with case file and copy available at P.No. 17 to 18
4. The OPGW Cable Rates (S.no.7 to 8) are taken as per Order No. RRVPNL/SE (Autom & NSP) /XEN-1/TN-7/Contract/PO 15 /D 595 Dated 16.10.2017 and copy available at P No. 19 to 24

ASSISTANT ENGINEER(T&C)
RVPNL, SRIGANGANAGAR

EXECUTIVE ENGINEER(T&C)
RVPNL, HANUMANGARH

Arithmatically checked & found correct.

Accounts Officer (T&C)
SRVPNL, Hanumangarh

C/S

23/02/20
S.E (T&C)
HMGH

OFFICE OF THE ASSISTANT ENGINEER- (T&C)
RRVPN Ltd. SRI GANGANAGAR

"G" SCHDULE FOR 132 KV S/C RaiSinghnagar-Jaitsar Transmission Line For Jetsar Solar (NTPC) 19.5 KM

S.No.	Particulars of work	Unit	Qty.	Rate	Amount
1	**Detail Survey as per tentative route -** Which includes the following major activities - Pegging of line route,providing of survey pillar at an interval of 3-4 KM in the line route with required jungle clearance for survey ,profile preparation of approved route on graph sheet and marking of offset on either side of line, marking of side clearance for hills , sand dunes etc. as per specification and tower scheduling.	KM	19.50	8756.00	170742.00
2	**Check survey as per approved route of line Which includes -** Re -checking of the line route as per approved profile, chainage , tower center marking, pit marking,bisection of angle tower as required at site.	KM	19.50	3255.00	63472.50
3	**Excavation -** Excavation,excluding back filling ,including shoring, shuttering,dewatering,etc.up to the required depth as per foundation specification/ drawings .				
	(1) Normal soil	CUM.	4000.00	392.00	1568000.00
4	**Setting of template and stub/anchor bolt -** Setting of template and stub/anchor bolt and removal after concreting,excluding cost of excavation and concreting but including back filling with excavated/ borrowed earth (with lead & lift) in layers with ramming and watering as per specification.				
	(i) Tower including Ext. upto 9 mtr.	MT.	12.00	17327.00	207924.00
5	**Concreting -** Providing and laying cement concrete for all types of foundation as per latest ISS:456 including cement, sand, stone aggregate 20 mm nominal size, water etc.,preparing surfaces,shuttering, mixing, placing, ramming,curing, finishing as per specification and drawing.				
	(ii) 1:3:6 Mix	CUM.	10.00	8525.00	85250.00
	(iii) 1:2:4 Mix	CUM.	40.00	8784.00	351360.00
	(iii) 1:1.5:3 Mix	CUM.	380.00	10715.00	4071700.00
6	**Steel Reinforcement -** Cutting, bending, welding of joints if required,fixing and placing of steel reinforcement as per specification and drawings including material.	MT.	29.00	61496.00	1783384.00
7	**Earthing -** (A) Earthing of towers with pipe type earthing excluding the supply of pipes, wires, flats & connectors, but including coke / charcoal, etc., excavation, augering and backfilling in all types of soil.	Set	73.00	1568.00	114464.00

(5)

8	**Erection of Towers -** Erection of super structures including D-shackles, ACD, Hangers, U- Bolts, step bolts,danger plate, phase plate ,number plate etc. Also including tack welding of bolts & nuts upto bottom cross arm / beam level including application of Zinc Rich paint				
	(i) Erection of tower (with Ext. upto 9 mtr.)	MT.	185.00	4876.00	902060.00
10	**Conductor Stringing -** Stringing of ACSR Panther including hoisting of				
	insulator string, laying, jointing & tensioning of conductor, clamping with Armour rods and fixing of vibration damper per route KM of the line.				
	(i) Single conductor	KM	60.00	9624.00	577440.00
11	**OPGW Cable**				
	24 Fibre (DWGW) OPGW optic fiber cable	KM	19.50	61441.00	1198099.50
12	Installation Hardware Set for above 24 Fibre OPGW Fibre optic Cabling including of all cable fittings and accessories expect joint box	set	16.00	1229.00	19664.00
13	Joint box (24 Fiber)	set	16.00	9831.00	157296.00
TOTAL					11270856.00
Add 14 % Above					1577919.84
Total					12848775.84
Add 18 % GST					2312779.65
Grand Total					15161555.49

(Amounts In Words : Rs. One Crore Fifty one Lacks Sixty One Thousand Five Hundred Fifty Five and Forty Nine Paisa Only)

Civil Component (S.no. 1 to 6)	8301832.5
14 % Above	1162256.55
Total	9464089.05
Add 18% GST	1703536.03
Grand Total	11167625.08
Labour Component (S.No. 7 to 13)	2969023.50
14 % Above	415663.29
Total	3384686.79
Add 18% GST	609243.62
Grand Total	3993930.41
Total Labour + Civil Component	15161555.49

Certificate:

1. The Rates from S.No. 1 to 10 are taken as per SE (Contracts-II) order No:RVPN/SE(Contracts-II)/XEN-4/F. /D.845 Jaipur DT. 26/09/2019 for unit quantity items of 220/132 KV transmission line on labour contract.
2. The G- Schedule of above mentioned work has been prepaired with 14% above preimum as per work order issued to M/s Purkha Ram Choudhary Bikaner for Construction work of 132 kv S/C Amarpura Thedi-Tibbi Tr. Line. The Copy of Wrok order placed with case file at page no. 17 & 18.
3. The OPGW Cable service Rates of S.No. 11 to 13 are taken as per Order No. RRVPNL/SE (Autom & NSP) /XEN-1/TN-7/Contract/PO 15 /D 595 Dated 16.10.2017 and available at page no. 19 to 24.

Executive Engineer (T&C)
RRVPN Hanumangarh

Assistant Engineer (T&C)
RRVPN Sri Ganganagar

Arithmatically checked & found correct.

Accounts Officer (T&C)
RRVPNL, Hanumangarh

03/02/20

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED
[Corporate Identity Number (CIN):U40109RJ2000SGC016485]
GST Registration Number : 08AABCR8312A1ZT
(AN ISO 9001:2015 CERTIFIED COMPANY)
OFFICE OF THE SUPERINTENDING ENGINEER (T&C) HANUMANGRH
220 KV GSS COLONY PREMISES , SATIPURA POWER HOUSE
HANUMANGARH , RAJASTHAN , INDIA , PIN CODE : 335512
TELEPHONE : 01552-262124 , FAX :
EMAIL : se.tnc.hmgh@rvpn.co.in

WORK ORDER No. - 4600017809 D. 1191 Dated 28/10/2020

Vendor Details

Vendor Name : PURKHA RAM CHAUDHARY (1001600)

Address: NEAR DUDI DHARAM KANTA, GAJNER ROAD, BIKANER
BIKANER
RAJASTHAN , INDIA

Contact No. :
Email Address : prc.5050@gmail.com
TIN No. :
PAN No.: AFVPC1311A
Bid Opening Date: --

Fax No. :
GST No. : 08AFVPC1311A1Z2
Ser.Tax No. :

Bid No.:

Sub : Erection,Testing and Commissioning for construction of 132 KV S/C Raisinghnagar- Jetsar (NTPC) transmission line (Approx. 19.50 Kms.) under Deposit work of M/S NTPC on labour contract basis under BN-2010002005.

Ref : Your offer opened on e-proc website on dated 12.10.2020.

Dear Sir(s),

With reference to the above mentioned correspondence, the NIGAM is pleased to place an order for Erection ,Testing and Commissioning for construction of 132 KV S/C Raisinghnagar- Jetsar (NTPC) transmission line (Approx. 19.50 Kms.) under Deposit work of M/S NTPC on labour contract basis under BN-2010002005 on 32.00% below of specified BSR rates (W.E.F.26.09.19).The total amount without GST is Rs.7371710.00 (Rs. Seventy Three Lac Seventy One Thousand Seven Hundred and Ten Only).The amount of GST is Rs.1326907.80 (Rs. Thirteen Lac Twenty Six Thousand Nine Hundred Seven and paise Eighty only).The total amount with GST is Rs. 8698617.80 (Rs. Eighty Six Lac Ninety Eight Thousand Six Hundred & Seventeen and paise Eighty only).

(1)SCOPE OF WORK :

1. This contract covers erection of transmission line which includes original survey, check survey, profiles, foundation work of towers, erection of tower & their accessories, providing earthing to towers, stringing and commissioning (including special tower work if any), dismantling of towers, Conductor Restringing & Earth wire Restringing as per the drawings and details to be supplied by NIGAM.

2. The quantum of work involved under this contract is as shown in Schedule-I of Section-IV

3. The contract also covers taking delivery of fabricated tower materials, Bolts, Nuts and other line materials from indicated stores centers of the NIGAM, its safe custody and transporting the same to site.

4. The above three clauses are subject to:
(i) Commercial Terms & conditions .
(ii) Technical Terms & conditions .
(iii) Schedule of erection prices.

5. The work for construction of 132 KV S/C Raisinghnagar- Jetsar (NTPC) transmission line (Approx. 19.50 Kms.) under Deposit work of M/S NTPC on labour contract basis under BN-2010002005 is to be carried out on "as is where is" basis.

6. The erection including various activities for construction of 132 KV S/C Raisinghnagar- Jetsar (NTPC) transmission line (Approx. 19.50 Kms.) under Deposit work of M/S NTPC on labour contract basis under BN-2010002005 shall be completed as per schedule mentioned in Clause No. 1.8 "Completion Time" of Section-I of Work Order which is inclusive of monsoon period.

7. The line in-charge for for construction of 132 KV S/C Raisinghnagar- Jetsar (NTPC) transmission line (Approx. 19.50 Kms.) under Deposit work of M/S NTPC on labour contract basis under BN-2010002005 AEN(T&C)RVPN, SriGanganagar under XEN(T&C) Hanumangarh.

8. The detailed work order shall be governed by RRVPN LTD "General Conditions of contract", Commercial Terms & Condition for erection /Re-routing/shifting of transmission line and technical particulars of bid specification as per bid documents and the terms and condition stated stated here under. In case the terms and conditions mentioned in the General Conditions of Contract are modified or differ from those mentioned in this work order, the later shall prevail.

Please acknowledge the receipt of this order and confirm the acceptance within ten days of its receipt The acceptance of the order shall be conveyed to the Superintending Engineer((T&C), RVPN, Hanumangarh-335512, within ten days of the receipt of order in the prescribed Performa failing which it will be presumed that the terms and conditions incorporated in the order are acceptable to the contractor

Encl:1)Section – I, II & III
2)BAR-CHART

Yours faithfully,

SUPERINTENDING ENGINEER (T&C) HANUMANGA

Copy submitted /forwarded to the followings for kind information and necessary action .
1.The Zonal Chief Engineer (T&C) RVPN, Jodhpur
2.The Chief Controller of Accounts , RVPN, Jaipur
3.The RCAO (T&C), RVPN, Jodhpur.
4.The Executive Engineer(T&C)RVPN, Hanumangarh
5.The Accounts Officer (T&C), RVPN, Hanumangarh.
6.The Dy. Director (IA), RVPN, Jaipur
7.The Assistant Engineer(T&C)RVPN, Sriganganagar
8.The Commissioner (Commercial), Central Customs and Excise, Rajasthan, Statue Circle, Jaipur.
9.The Commissioner (Commercial Taxes), Govt. of Rajasthan, Jaipur, Kar Bhawan, Jaipur.
10.The Income Tax Officer (CIB), O/O, DDI, Jaipur.

SUPERINTENDING ENGINEER (T&C) HANUMANGA

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED
[Corporate Identity Number (CIN):U40109RJ2000SGC016485]
GST Registration Number : 08AABCR8312A1ZT
(AN ISO 9001:2015 CERTIFIED COMPANY)
OFFICE OF THE SUPERINTENDING ENGINEER (T&C) HANUMANGRH
220 KV GSS COLONY PREMISES , SATIPURA POWER HOUSE
HANUMANGARH , RAJASTHAN , INDIA , PIN CODE : 335512
TELEPHONE : 01552-262124 , FAX :
EMAIL : se.tnc.hmgh@rvpn.co.in

WORK ORDER No. - 4600017809

Sl.No	Service Text at header level	Service Code	Short Text Service	Qty	Uom	Unit Price (INR)	OH Charge (%)	Unit Price including OH charge Value	Total Price	CGST Rate (%)	CGST Amt	SGST Rate (%)	SGST Amt	IGST Rate (%)	IGST Amt	Total Price incl.of all taxes
10	CONSTR. OF 132KVS/C RAISINGHNAGAR-JETSAR															
10.1		PRJ1435	DETAILED SURVEY	19.5	KM	6,756.00	-32.0%	5,954.08	116,104.56	9.00	10,449.41	9.00	10,449.41			137,003.38
10.2		PRJ1055	CHECK SURVEY AS PER APPROVED ROUTE	19.5	KM	3,255.00	-32.0%	2,213.40	43,161.30	9.00	3,884.52	9.00	3,884.52			50,930.34
10.3		PRJ3899	EXCAVATION- ANY SOIL, SOFT ROCK	4,200	M3	392.00	-32.0%	266.56	1,119,552.00	9.00	100,759.68	9.00	100,759.68			1,321,071.36
10.4		PRJ3908	SETTING TEMPLATE- TOWER UPTO+9M	12	MT	17,327.00	-32.0%	11,782.36	141,388.32	9.00	12,724.95	9.00	12,724.95			166,838.22
10.5		PRJ1058	CONCRETING- 1:3:6 MIX	20	M3	8,525.00	-32.0%	5,797.00	115,940.00	9.00	10,434.60	9.00	10,434.60			136,809.20
10.6		PRJ1057	CONCRETING- 1:2:4 MIX	55	M3	8,784.00	-32.0%	5,973.12	328,521.60	9.00	29,566.94	9.00	29,566.94			387,655.48
10.7		PRJ1056	CONCRETING- 1:1.5:3 MIX	408	M3	10,715.00	-32.0%	7,286.20	2,972,769.60	9.00	267,549.26	9.00	267,549.26			3,507,868.12
10.8		PRJ1069	STEEL REINFORCEMENT	32	MT	61,496.00	-32.0%	41,817.28	1,338,152.96	9.00	120,433.77	9.00	120,433.77			1,579,020.50
10.9		PRJ1465	PIPE TYPE EARTHING OF TOWER	73	SET	1,568.00	-32.0%	1,066.24	77,835.52	9.00	7,005.20	9.00	7,005.20			91,845.92
10.10		PRJ1441	ERECTION OF SS/SP TOWER, EXTN	192	MT	4,876.00	-32.0%	3,315.68	636,610.56	9.00	57,294.95	9.00	57,294.95			751,200.46

Sl.No	Service Text at header level	Service Code	Short Text Service	Qty	Uom	Unit Price (INR)	OH Charge (%)	Unit Price Including OH charge Value	Total Price	CGST Rate (%)	CGST Amt	SGST Rate (%)	SGST Amt	IGST Rate (%)	IGST Amt	Total Price incl.of all taxes
10.11		PRJ3901	STRINGING- PANTHER-1 CONDUCTOR	60	KM	9,624.00	-32.0%	6,544.32	392,659.20	9.00	35,339.33	9.00	35,339.33			463,337.86
10.12		PRJ1086	STRINGING OF E/W-1NO. 7/3.15MM	19.5	KM	6,713.00	-32.0%	4,564.84	89,014.38	9.00	8,011.29	9.00	8,011.29			105,036.96
			Total						7,371,710.00		663,453.90		663,453.90			8,698,617.80

Amount In Words: RUPEES EIGHTY SIX LAKH NINETY EIGHT THOUSAND SIX HUNDRED SEVENTEEN AND PAISE EIGHTY ONLY

SUPERINTENDING ENGINEER (T&C) HANUMANGRH

Executive Engineer (T&C)
RVPNL, Hanumangarh