

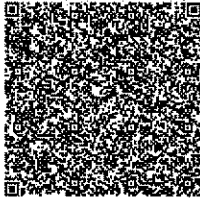


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INDIA NON JUDICIAL Government of Jharkhand

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Certificate No.	: IN-JH20698870759968R
Certificate Issued Date	: 27-Aug-2019 11:25 AM
Account Reference	: NONACC (SV)/jh9000104/ RANCHI/ JH-RNC
Unique Doc. Reference	: SUBIN-JHJH900010428416821372884R
Purchased by	: R S INFRAPROJECTS PVT LTD
Description of Document	: Article 5 Agreement or memorandum of an Agreement.
Property Description	: AGREEMENT
Consideration Price (Rs.)	: 0 (Zero)
First Party	: R S INFRAPROJECTS PVT LTD
Second Party	: JHARKHAND URJA SANCHARAN NIGAM LTD
Stamp Duty Paid By	: R S INFRAPROJECTS PVT LTD
Stamp Duty Amount(Rs.)	: 1,000 (One Thousand only)



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Contract Agreement No. 05

THIS AGREEMENT is made the 27th day of August' 2019, BETWEEN

(1) *Jharkhand Urja Sancharan Nigam Limited (JUSNL)* (CIN No. – U40108JH2013SGC001704), a corporation incorporated under the laws of India and having its principal place of business at **JUSNL (SLDC) Building, Kusai Colony, Doranda, Ranchi-02** (hereinafter called “the Employer”), and

(2) *M/s R.S. Infraprojects Pvt. Limited (CIN No. U28112DL2005PTC140621)*, a corporation incorporated under the laws of India and having its principal place of business at **H-70, Lane W-10, Sainik Farms, New Delhi-110062** (hereinafter called “the Contractor”)

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Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at "www.sholestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
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WHEREAS the Employer desires to engage the Contractor to design, manufacture, test, deliver, install, complete and commission certain Facilities for **Supply, Installation, Testing and Commissioning of 132 kV Double Circuit Transmission Lines from Hansdiha to Jasidih– 45.398 km, LILO of both ckt of 132 kV DC Jamtara to Madhupur Transmission line at Narayanpur– 12.592 & 13.354km, LILO of one ckt of 132 kV D/C Lalmatia to Dumka at Hansdiha – 3.42 km, Transmission line from Sarath to Palojori – 20.101 km & Transmission line from Sarath to Chitra – 15.138 km** (“the Facilities”), and the Contractor has agreed to such engagement in accordance with Jharkhand Urja Sancharan Nigam Limited’s **NIT No. 223/PR/JUSNL/2018-2019 (Package 06B) RFB No. JPSIP/2018/TL/06-B** and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

Article 1. Contract Documents

1.1 Contract Documents (Reference GCC Clause 2)

The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:

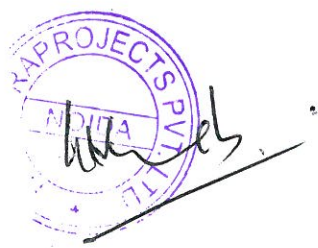
- (a) This Contract Agreement and the Appendices hereto
- (b) Letter of Bid (Technical & Financial) and Price Schedules submitted by the Contractor
- (c) Particular Conditions (Section IX of NIT No. 223/PR/JUSNL/2018-2019)
- (d) General Conditions (Section VIII of NIT No. 223/PR/JUSNL/2018-2019)
- (e) Specifications (NIT No. 223/PR/JUSNL/2018-2019)
- (f) Drawings (NIT No. 223/PR/JUSNL/2018-2019)
- (g) Other completed Bidding forms submitted with the Bid
- (h) Employer’s Requirement (Section VII of NIT No. 223/PR/JUSNL/2018-2019)
- (i) All Addendums and Pre-bid clarifications (if any) issued by the Employer against NIT No. 223/PR/JUSNL/2018-2019
- (j) Post bid clarifications and undertakings submitted by the Contractor

1.2 Order of Precedence (Reference GCC Clause 2)

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.

1.3 Definitions (Reference GCC Clause 1)

Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions.



**Article 2. Contract
Price and Terms
of Payment**

2.1 Contract Price (Reference GCC Clause 11)

The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be: **Rupees Fifty One Crore Twenty Five Lac and Eighty Six only, Rs. 51,25,00,086.00** (excluding GST/ Taxes), as specified in Price Schedule No. 5 (Grand Summary), or such other sums as may be determined in accordance with the terms and conditions of the Contract.

2.2 Terms of Payment (Reference GCC Clause 12)

The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in the Appendix (Terms and Procedures of Payment) hereto.

**Article 3. Effective
Date**

3.1 Effective Date (Reference GCC Clause 1)

The Effective Date from which the Time for Completion of the Facilities shall be counted is the date when all of the following conditions have been fulfilled:

- (a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor;
- (b) The Contractor has submitted to the Employer the Performance Security and the advance payment guarantee;
- (c) The Employer has paid the Contractor the advance payment

Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.

- 3.2** If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of this Contract notification because of reasons not attributable to the Contractor, the Parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.

**Article 4.
Communications**

- 4.1** The address of the Employer for notice purposes, pursuant to GCC 4.1 is: JUSNL (SLDC) Building, Kusai Colony, Doranda, Ranchi-834002.

- 4.2** The address of the Contractor for notice purposes, pursuant to GCC 4.1 is: H-70, Lane W-10, Sainik Farms, New Delhi-110062.

**Article 5.
Appendices**

- 5.1** The Appendices listed in the attached List of Appendices shall be deemed to form an integral part of this Contract Agreement.
- 5.2** Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.



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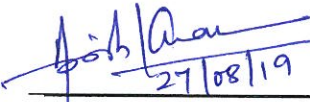
IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by, for and on behalf of the Employer


27/8/19
General Manager
(Contracts & Material)
(Multi-Lateral Funding Projects)
Mr. Chandra Shekhar Jha, General Manager,
Contracts & Materials, Multi-Lateral Funding Projects.

Witness:


27/8/19
Mr. Ajay Kumar,
Dy. General Manager, C&M, MLFP


27/08/19
Mr. Awanish Kumar,
Senior Manager, C&M, MLFP

Signed by, for and on behalf of M/s R S Infra Pvt. Limited


27/8/19
Mr. Krishna Pratap Singh, Vice President
Transmission Line Projects

Witness:


27/8/19
Mr. Arun Upadhyay, AGM (Transmission)

List of Appendices

1. Appendix 1. Terms and Procedures of Payment
2. Appendix 2. Price Adjustment
3. Appendix 3. Insurance Requirements
4. Appendix 4. Time Schedule
5. Appendix 5. List of Major Items of Plant and Installation Services and List of Approved Subcontractors
6. Appendix 6. Scope of Works and Supply by the Employer
7. Appendix 7. List of Documents for Approval or Review
8. Appendix 8. Functional Guarantees



Appendix 1. Terms and Procedures of Payment

In accordance with the provisions of GCC Clause 12 (Terms of Payment), the Employer shall pay the Contractor in the following manner and at the following times, on the basis of the Price Breakdown given in the section on Price Schedules. Payments will be made in Rs, unless otherwise agreed between the Parties. Applications for payment in respect of part deliveries may be made by the Contractor as work proceeds.

TERMS OF PAYMENT

Schedule No. 1. Plant and Equipment Supplied from Abroad – Not used.

Schedule No. 2. Plant and Equipment Supplied from within the Employer's Country

In respect of plant and equipment supplied from within the Employer's country, the following payments shall be made.

Ten percent (10%) of the total EXW amount as Mobilization payment against receipt of invoice, and an irrevocable mobilization payment security for the equivalent amount made out in favour of the Employer. The mobilization payment security may be reduced in proportion to the value of the plant and equipment delivered to the site, as evidenced by shipping and delivery documents.

The 10% Mobilization payment shall be paid as under:

5% of the total EXW amount on submission of invoice and proof by the contractor that the site office is opened.

5% of the total EXW amount on submission of invoice and proof by the contractor on certification by the Employer of the commencement of line survey.

Fifty (50%) of the total or pro rata EXW amount upon Incoterm "EXW," upon delivery to the carrier and on submission of following documents through irrevocable Letter of Credit opened in favour of supplier bank:

- i) 6 copies of supplier invoice showing contract no., goods description, quantity, unit price and total amount.
- ii) Original and 6 copies of negotiable, clean, on-board bill of lading (from Indian Banking Association approved transporter in case of road cargo) marked freight prepaid and 6 copies of non-negotiable bill of lading.
- iii) 6 copies of Detailed Packing list identify contents of each package.
- iv) Insurance Policy/Certificate.
- v) Manufacturer's / supplier's warranty certificate.
- vi) Factory inspection report issued by the Employer in the form of Dispatch Authorization.
- vii) Certificate of origin.
- viii) The Contractor to submit proof of GST payment and e-way bill along with invoice.
- ix) Certificate from the Project Manager on the specified format indicating that the material is required sequential to related erection and civil activities



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Thirty percent (30%) of the EXW amount upon *Incoterm* "EXW," price of each item shall be paid within 45 days after receipt and storage of material at site and on physical verification by the employer. The payment shall be made on submission of following documents:

- i) Documentary evidence of handing over of material at the Contractor's site store, to Employer and its re-issue to the Contractor against indemnity bond for execution of work.
- ii) Contractor's detailed invoice.
- iii) Detailed Packing list.
- iv) Insurance policy/Certificate.
- v) Dispatch authorization issued by the employer.
- vi) Tax Certificate if any.
- vii) Proof of deposit of tax other than GST if any

Five percent (5%) of the total or pro rata EXW amount upon issue of the Completion Certificate including submission of As Built Drawings & Documents, within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata EXW amount upon issue of the Operational Acceptance Certificate, within 45 days after receipt of invoice.

Schedule No. 3. Design Services

In respect of design services, payments shall be made in Rs, in the following manner:

Ten percent (10%) of the total design services amount as an advance payment against receipt of invoice, and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer.

The breakup of 10% mobilization payment amount is as under:

5% of the total EXW amount on submission of invoice and proof by the contractor that the site office is opened.

5% of the total EXW amount on submission of invoice and proof by the contractor on certification by the Employer of the commencement of line survey.

Ninety percent (90%) of the total or pro rata design services amount upon acceptance of design in accordance with GCC Clause 20 by the Project Manager within forty-five (45) days after receipt of invoice.

Schedule No. 4. Installation Services

In respect of installation services, payments shall be made:

Ten percent (10%) of the total installation services amount as a mobilization payment against receipt of invoice, and an irrevocable mobilization payment security for the equivalent amount made out in favour of the Employer. The mobilization payment security may be reduced in proportion to the value of work performed by the Contractor as evidenced by the invoices for installation services.



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The Contractor to submit GST and civil material consumption and utilization report for loyalty calculation.

The breakup of 10% mobilization payment amount is as under:

5% of the total EXW amount on submission of invoice and proof by the contractor that the site office is opened.

5% of the total EXW amount on submission of invoice and proof by the contractor on certification by the Employer of the commencement of line survey.

Eighty percent (80%) of the measured value of work performed by the Contractor, as identified in the said Program of Performance, during the preceding month, as evidenced by the Employer's authorization of the Contractor's application, will be made monthly within forty-five (45) days after receipt of invoice except for the payment of following lot items which will be regulated as under:

Payment of lot items specified under unit/ Qty. columns in the price schedule:

Payment of lot items will be paid on completion of the lot activity as below:

Five percent (5%) of the total or pro rata value of installation services performed by the Contractor as evidenced by the Employer's authorization of the Contractor's monthly applications, upon issue of the Completion Certificate, within 45 days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation services performed by the Contractor as evidenced by the Employer's authorization of the Contractor's monthly applications, upon issue of the Operational Acceptance Certificate, within 45 days after receipt of invoice.

In the event that the Employer fails to make any payment on its respective due date, the Employer shall pay to the Contractor interest on the amount of such delayed payment at the rate equal to PLR of SBI prevailing at the time of due date of payment per month for period of delay until payment has been made in full.

PAYMENT PROCEDURES

The procedure to be followed in applying and certification and making payment are as explained in above respective paras. The Employer shall make payments promptly within forty five (45) days of submission of an invoice/claim by the Contractor. All the payment shall be released to the Contractor directly except the payment due on shipment, which shall be paid through irrevocable confirmed Letter of Credit. The Letter of Credit shall be established by the Employer in time for supplies to be made as scheduled. However, the payments of price adjustment and taxes & duties etc. shall be made as follows:

a) Payment of price adjustment:-

Ninety Percent (90%) of the calculated price variation will be made within 45 days after receipt of invoice.

Five percent (5%) of the calculated price variation will be made upon issue of the Completion Certificate, within 45 days after receipt of invoice.

Five percent (5%) of the calculated price variation will be made upon issue of the Operational Acceptance Certificate, within 45 days after receipt of invoice.



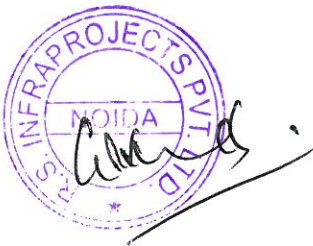
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b) Taxes and Duties:

Taxes & Duties in respect of transaction between Employer and the Contractor and any other tax as applicable for destination site/state on all items of supply including bought-out finished items (as identified in the Contract), which shall be dispatched directly from the sub-vendor's works to the Employer's site (sale-in-transit) will be paid after each shipment against documentary evidence. This payment shall be released by Employer directly to the Contractor against invoices to be submitted by the Contractor. No Tax will be paid on the bought-out items, which are directly dispatched by the Subcontractor.

Note: The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Contractor shall remain constant unless there is change made in the Scope of Work by Employer and/or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the Contractor shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the Contractor, are required for successful completion of the scope of work as per Technical Specification, the Contractor shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the Contractors and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the Contractor, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

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Appendix 2. Price Adjustment

PRICE ADJUSTMENT

1.1 General

- 1.1.1 Prices for work and materials covered under the scope of this Specification shall be furnished by the contractor in the manner specified in the Bid Form & Price Schedules. The Prices shall remain FIRM for all the equipments and installation services except that of supply of Tower Material and Conductor which shall be adjustable.

1. Price variation for Tower material:

Transmission Line Tower with both Heavy and Light angles:

$$P = \frac{Po}{100} \left(11 + 32 \frac{SBLR}{SBLRo} + 25 \frac{SBIR}{SBIRo} + 09 \frac{Zn}{Zno} + 23 \frac{W}{Wo} \right)$$

Wherein,

P = Price payable as adjusted in accordance with the above formula.

Po = Price quoted/confirmed.

SBLRo = Price of Steel Blooms- Retail

This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

SBIRo = Price of Steel Billets- Retail

This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

Zno = Price of Electrolytic high grade zinc- Retail

This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

Wo = All India consumer price index number for industrial workers as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001=100)

This index number is as applicable on the 1st working day of the month, three months prior to the date of tendering.

The above prices and indices are as published by IEEMA one month prior to the date of tendering.

SBLR = Price of Steel Blooms- Retail

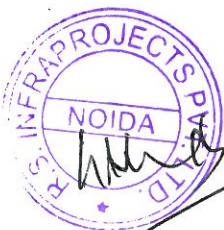
This price is as applicable on the 1st working day of the month, two months prior to the date of tendering.

SBIR = Price of Steel Billets- Retail

This price is as applicable on the 1st working day of the month, two months prior to the date of tendering.

Zn = Price of Electrolytic high grade zinc- Retail

This price is as applicable on the 1st working day of the month, two months prior to the date of tendering.



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W = All India consumer price index number for industrial workers as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001=100)

This index number is as applicable on the 1st working day of the month, four months prior to the date of tendering.

2. Price variation for Conductor:

$$P = P_o + WA(AL - ALo) + WF(FE - FE_o)$$

Wherein,

P = Price payable in Rs. per km as adjusted in accordance with the above formula.

P_o = Price quoted/confirmed in Rs. per km.

WA = Weight of Aluminium in ACSR conductor in MT per km. For ACSR Panther conductor this factor shall be 0.586 MT/km

ALo = Price of daily LME Cash SELLER Settlement price of Aluminium.

This price is applicable prevailing as on 30 days prior to the date of tendering.

WF = Weight of Steel Content in ACSR conductor in MT per km. For ACSR Panther conductor this factor shall be 0.388 MT/km.

FE_o = Price of High Tensile Galvanized Steel Wire in Rs. per MT of appropriate size.

This price is applicable prevailing as on 30 days prior to the date of tendering

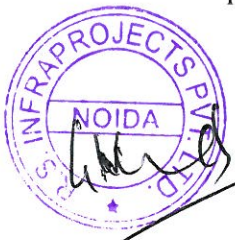
The above indices are as published by IEEMA

AL = Price of daily LME Cash SELLER Settlement price of Aluminium.

This price is applicable prevailing as on 30 days prior to the date of delivery.

FE = Price of High Tensile Galvanized Steel Wire in Rs. per MT of appropriate size.

This price is applicable prevailing as on 30 days prior to the date of delivery.



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Appendix 3. Insurance Requirements

Insurances to be Taken Out by the Contractor

In accordance with the provisions of GC Clause 34, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.

(a) Cargo Insurance

Covering loss or damage occurring, while in transit from the supplier's or manufacturer's works or stores until arrival at the Site, to the Facilities (including spare parts therefore) and to the construction equipment to be provided by the Contractor or its Subcontractors.

Amount	Deductible limits	Parties Insured	From	To
140% of the (Ex-works/ CIP Indian Port of entry/CIP Entry Border Point value)	NIL	Contractor & Employer	Warehouse	Warehouse + 60 days

(b) Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the defect liability period while the Contractor is on the Site for the purpose of

Amount	Deductible limits	Parties Insured	From	To
140% of the (Contract Price)	NIL	Contractor/ Sub-contractor & Employer	Receipt at site	Upto Defect Liability period

performing its obligations during the defect liability period.

(c) Third Party Liability Insurance

Covering bodily injury or death suffered by third parties (including the Employer's personnel) and loss of or damage to property (including the Employer's property and any parts of the Facilities that have been accepted by the Employer) occurring in connection with the supply and installation of the Facilities.



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Amount	Deductible limits	Parties Insured	From	To
Rs. 0.5 million per person per occasion	NIL	Contractor/ Sub-contractor	Commencement of work	Upto Defect Liability period

(d) Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors

(whether or not owned by them) in connection with the supply and installation of the Facilities. Comprehensive insurance in accordance with statutory requirements.

(e) Workers' Compensation

In accordance with the statutory requirements applicable in India where the facility or any part thereof is executed.

(f) Employer's Liability

In accordance with the statutory requirements applicable in India where the facility or any part thereof is executed.

The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GC Sub-Clause 34.1, except for the Third Party Liability, Workers' Compensation and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insurers under all insurance policies taken out by the Contractor pursuant to GC Sub-Clause 34.1, except for the Cargo, Workers' Compensation and Employer's Liability Insurances. All insurer's rights of subrogation against such co-insured for losses or claims arising out of the performance of the Contract shall be waived under such policies.

Insurances to Be Taken Out By The Employer – Nil.



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Appendix 4. Time Schedule

S. No.	Area/ Description of Milestone	Duration in Months	Finish month from LOA
A. Engineering			
1.	Basic Engineering	2	2
2.	Detailed Engineering	3	6
3.	Statutory Clearance support	6	12
4.	ROW clearance	6	12
B. Manufacturing & Supply			
1.	Bought out items Ordering completion	2	4
2.	Manufacturing	6	12
3.	Supply at of items at Site	10	15
4.			
C. Equipment Erection & commissioning			
1.	Opening of site office & mobilization	1	2
2.	Erection and commissioning of Transmission Lines	12	24
D. Completion of Work			
1.	All Civil and Other Miscellaneous Works	12	18
2.	DLP Period and Final Handover	As per GCC 27 and PCC 27	



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Appendix 5. List of Major Items of Plant and Installation Services and List of Approved Subcontractors

A list of major items of Plant and Installation Services is provided below.

The following Subcontractors and/or manufacturers are approved for carrying out the items of the Facilities indicated below. Where more than one Subcontractor is listed, the Contractor is free to choose between them, but it must notify the Employer of its choice in good time prior to appointing any selected Subcontractor. In accordance with GCC Sub-Clause 19.1, the Contractor is free to submit proposals for Subcontractors for additional items from time to time. No Subcontracts shall be placed with any such Subcontractors for additional items until the Subcontractors have been approved in writing by the Employer and their names have been added to this list of Approved Subcontractors.

Major Items of Plant and Installation Services	Approved Subcontractors/Manufacturers	Nationality
Conductor, OPGW and Insulators	Must be a currently approved vendor of PGCIL for this equipment	
Transmission Line Tower	Must be a currently approved vendor of PGCIL.	
Civil Works	Subcontractor must have at least 7 years of experience in 132kV or higher voltage Transmission line works and should have successfully completed one similar work costing not less than Rs.10 crores.	



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Appendix 6. Scope of Works and Supply by the Employer

The following personnel, facilities, works and supplies will be provided/supplied by the Employer, and the provisions of GCC Clauses 10, 21 and 24 shall apply as appropriate.

All personnel, facilities, works and supplies will be provided by the Employer in good time so as not to delay the performance of the Contractor, in accordance with the approved Time Schedule and Program of Performance pursuant to GCC Sub-Clause 18.2.

Unless otherwise indicated, all personnel, facilities, works and supplies will be provided free of charge to the Contractor.

Personnel

Nil

Charge to Contractor (if any)

Facilities

Nil

Charge to Contractor (if any)

Works

Nil

Charge to Contractor (if any)

Supplies

Nil

Charge to Contractor (if any)



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Appendix 7. List of Documents for Approval or Review

Pursuant to GCC Sub-Clause 20.3.1, the Contractor shall prepare, or cause its Subcontractor to prepare, and present to the Project Manager in accordance with the requirements of GCC Sub-Clause 18.2 (Program of Performance), the following documents.

List of deliverables (indicative list)

TRANSMISSION LINE	
Civil and Electrical Drawings/Documents List to be submitted by Contractor for each Transmission line separately	
S.NO	DRAWINGS/DOCUMENTS TITLE
	ELECTRICAL
A	DESIGN CALCULATIONS AND DOCUMENTS
1	SAG TENSION CALCULATION
2	ELECTRICAL BOQ
B	DRAWINGS
1	STRINGING CHART
2	VENDOR DRAWINGS (CONDUCTOR, OPGW, HARDWARE FITTINGS, INSULATORS etc)
3	ERECTION KEY DIAGRAM
	CIVIL
1	DESIGN BASIS REPORT
2	CHECK SURVEY REPORT
A	DESIGN CALCULATIONS AND DOCUMENTS
1	DESIGN CALCULATION OF TOWER STRUCTURE
2	DESIGN CALCULATION OF TOWER FOUNDATION
3	TOWER ABSTRACT
4	CIVIL BOQ
5	TRANSMISSION LINE SCHEDULE
B	DRAWINGS
1	TRANSMISSION LINE PLAN AND PROFILE
2	TOWER STRUCTURAL DRAWING
3	TOWER FOUNDATION DRAWING
4	TOWER FABRICATION DRAWING
C	MISCELLANEOUS DRAWINGS
1	TOWER FOUNDATION PROTECTION, BENCHING DRAWINGS
2	TOWER EARTHING DRAWING



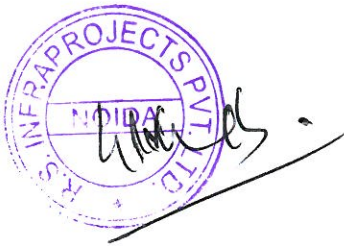
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Appendix 8. Functional Guarantees

NOT APPLICABLE FOR TRANSMISSION LINE PACKAGE – MAY BE DELETED.

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SCHEDULE - 2 : Supply and Mandatory Spare Parts for Transmission Line from Hansdiha to Jasidih								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From Hansdiha to Jasidih								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
0								
Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	(4x5) 6	% 7	(6x7) 8	(6+8) 9
A	Tower, Monopole and Gantry Structure							
A1	Fabrication, Galvanizing and supply of various type of tower & Tower Parts, Gantry, Tower extensions (Complete), Stubs excluding bolts & nuts, Step bolt but including hangers, D-Shackles pack washer etc.							
i.	HT Steel	MT	202	74,000	14948000.00	18.00%	2690640.00	17638640.00
ii.	Mild Steel	MT	476	71,000	33796000.00	18.00%	6083280.00	39879280.00
A2	Supply of bolts & nuts including step bolts and spring washers	MT	40	100,000	4000000.00	18.00%	720000.00	4720000.00
A3	Fabrication, Galvanizing and Supply of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.	MT	32	130,000	4160000.00	18.00%	748800.00	4908800.00
A4	Testing Charges for Special type of towers and Monopoles (Refer Note-4 for details)	No.	2	100,000	200000.00	18.00%	36000.00	236000.00
B	EARTHING OF TOWERS							
B1	Supply of Earthing of Towers							
i.	Pipe Type Earthing	Nos.	79	2,826	223254.00	18.00%	40185.72	263439.72
ii.	Counterpoise Earthing	Nos.	95	7,370	700150.00	18.00%	126027.00	826177.00
C	Tower Accessories					18.00%		
C1	Supply of following tower accessories					18.00%		
i.	Danger plate with Nuts & Bolts (1 per Tower)	Nos.	174	240	41760.00	18.00%	7516.80	49276.80
ii.	Number plate with Nuts & Bolts (1 per Tower)	Nos.	174	240	41760.00	18.00%	7516.80	49276.80
iii.	Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets	348	240	83520.00	18.00%	15033.60	98553.60
iv.	Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets	174	240	41760.00	18.00%	7516.80	49276.80
v.	Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets	174	5,528	961872.00	18.00%	173136.96	1135008.96
vi.	Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets	232	467	108344.00	18.00%	19501.92	127845.92
D	Design, manufacture and Supply of following line materials							
D1	INSULATORS & HARDWARE FITTINGS (including Insulator)							
i.	Single 'I' Suspension (145 kV Silicone composite Long Rod insulator)	Sets	392	3,881	1521352.00	18.00%	273843.36	1795195.36
ii.	Single Suspension Pilot (145 kV Silicone composite Long Rod insulator)	Sets	68	3,245	220660.00	18.00%	39718.80	260378.80
iii.	Double Suspension (145 kV Silicone composite Long Rod insulator)	Sets	98	7,762	760676.00	18.00%	136921.68	897597.68
iv.	Single Tension (145 kV Silicone composite Long Rod insulator)	Sets	98	3,947	386806.00	18.00%	69625.08	456431.08
v.	Double Tension (145 kV Silicone composite Long Rod insulator)	Sets	398	8,052	3204696.00	18.00%	576845.28	3781541.28
vi.	Single 'I' Suspension (145 kV Long Rod Porcelain insulator)	Sets	166	8,196	1360536.00	18.00%	244896.48	1605432.48
vii.	Single Suspension Pilot (145 kV Long Rod Porcelain insulator)	Sets	28	7,560	211680.00	18.00%	38102.40	249782.40
viii.	Double Suspension (145 kV Long Rod Porcelain insulator)	Sets	40	16,392	655680.00	18.00%	118022.40	773702.40
ix.	Single Tension (145 kV Long Rod Porcelain insulator)	Sets	40	9,486	379440.00	18.00%	68299.20	447739.20
x.	Double Tension (145 kV Long Rod Porcelain insulator)	Sets	170	19,130	3252100.00	18.00%	585378.00	3837478.00
D2	ACSR Panther for 3 Phase Double Circuit Transmission Line	km	283	155,698	44062534.00	18.00%	7931256.12	51993790.12
D3	OPGW with jointing and termination kit complete along with necessary hardwares and accessories as per approved specification	km	47	181,329	8522463.00	18.00%	1534043.34	10056506.34
D4	ACCESSORIES FOR CONDUCTOR (Mid Span compression joint, Repair sleeve, Vibration Damper, etc. complete)	LOT	1	625,328	625328.00	18.00%	112559.04	737887.04
E	Supply of following Aviation Requirements							
E1	Span Markers	Nos.	10	5,792	57920.00	18.00%	10425.60	68345.60
E2	Obstruction Lights (to be provided as per IS 5613)					18.00%		
i.	1 Medium Intensity + 2 Low Intensity	Sets	5	97,812	489060.00	18.00%	88030.80	577090.80
ii.	1 Medium Intensity + 4 Low Intensity	Sets	5	100,386	501930.00	18.00%	90347.40	592277.40
F	MANDATORY SPARES							
F1	Line Insulators (all types) (5% of total quantity to be considered)	LOT	1	243,482	243482.00	18.00%	43826.76	287308.76
F2	Conductor Hardware fittings (5% of total quantity to be considered)	LOT	1	87,823	87823.00	18.00%	15808.14	103631.14
F3	OPGW Hardware fittings (5% of total quantity to be considered)	LOT	1	39,244	39243.83	18.00%	7063.89	46307.72
F4	Tower Accessories (5% of total quantity to be considered)	LOT	1	28,419	28419.00	18.00%	5115.42	33534.42
G	MANDATORY TOOLS AND TACKLES							
G1	Aerial Rollers suitable for Single Panther	Nos.	10	4,798	47980.00	18.00%	8636.40	56616.40
G2	Earthwire Rollers	Nos.	5	3,427	17135.00	18.00%	3084.30	20219.30
G3	Single Sheave Pullies	Nos.	5	2,285	11425.00	18.00%	2056.50	13481.50
G4	Safety Belts	Nos.	5	1,942	9710.00	18.00%	1747.80	11457.80

Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
G5	Helmets	Nos.	5	228	1140.00	18.00%	205.20	1345.20
G6	First Aid Kit	Nos.	2	571	1142.00	18.00%	205.56	1347.56
G7	Tool Box	Nos.	2	3,427	6854.00	18.00%	1233.72	8087.72
G8	Drum lifting Jacks for Conductor	Sets	1	62,832	62832.00	18.00%	11309.76	74141.76
G9	Turn Table for Earthwire	Sets	1	36,557	36557.00	18.00%	6580.26	43137.26
G10	Discharge rod with cable	Nos.	2	13,709	27418.00	18.00%	4935.24	32353.24
G11	Fall arrester			-		18.00%		
i.	Mobile type	Sets	2	3,351	6702.00	18.00%	1206.36	7908.36
ii.	Retractable 6m long	Sets	2	11,704	23408.00	18.00%	4213.44	27621.44
G12	Crippling tool for GSW	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G13	Crippling tool for Conductor	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G14	Earth resistivity tester	Sets	1	12,566	12566.00	18.00%	2261.88	14827.88
H	Emergency Restoration System (ERS)	Sets	1	27,000,000	27000000.00	18.00%	4860000.00	31860000.00
TOTAL					153525837.83		27634650.81	181160488.64

			Bidder Name :	R.S. INFRAPROJECTS PVT. LTD
			Bidder Signature:	

NOTE

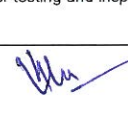
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

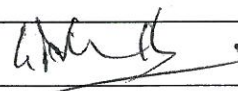
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. In case of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. In case of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.

SCHEDULE-3 : Design Services for Transmission Line from Hansdiha to Jasidih								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From Hansdiha to Jasidih								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
0								
Sl. No.	Description	Unit	Qty.	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	(4x5) 6	% 7	(6x7) 8	(6+8) 9
DESIGN ENGINEERING charges shall be included in the other schedules. Separate payment shall not be done								
TOTAL								
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				
NOTE								
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18								
2. Bidder to consider the GST rate as applicable.								
3. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.								





SCHEDULE-4 : Installation and Other Services for Transmission Line from Hansdiha to Jasidih
Schedule of Quantity & Prices for
Supply, Installation, Testing & Commissioning of
132kV Double Circuit Single ACSR Panther Transmission Line From Hansdiha to Jasidih
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project

Sl. No.	Item Description	Unit	Qty	Unit Price (Rs.) without GST	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Transport and Insurance with out GST	Transport and Insurance with GST	Total Erection Price (Rs.) with GST
					(4x5)	%	(6x7)			(6+8+10)
1	2	3	4	5	6	7	8	9	10	11
A	Survey									
A1	Check Survey and Field Investigation (Soil Investigation and Soil resistivity measurement)	km	45	9,240	415800.00	18.00%	74844.00	0.00	0.00	490644.00
B	Work Associated with Tower Foundations									
B1	Excavation in various types of soils									
	i. Dry Soil	Cum	3781	300	1134300.00	18.00%	204174.00	0.00	0.00	1338474.00
	ii. Wet Soil	Cum	3068	300	920400.00	18.00%	165672.00	0.00	0.00	1086072.00
	iii. WBC	Cum	1674	485	811890.00	18.00%	146140.20	0.00	0.00	958030.20
	iv. Dry Fissured Rock	Cum	1560	485	756600.00	18.00%	136188.00	0.00	0.00	892788.00
	v. Wet Fissured Rock	Cum	1089	562	612018.00	18.00%	110163.24	0.00	0.00	722181.24
B2	Concreting (Including all associated works related to foundation like benching, foundation protection, etc.)									
	i. M 25 Grade	Cum	115	9,387	1079505.00	18.00%	194310.90	0.00	0.00	1273815.90
	ii. M 20 Grade	Cum	1280	9,033	11562240.00	18.00%	2081203.20	0.00	0.00	13643443.20
	iii. M 10 Grade	Cum	188	7,446	1399848.00	18.00%	251972.64	0.00	0.00	1651820.64
B3	Supply and placement of reinforcement steel (Fe500) including installation of stub	MT	116	69,531	8065596.00	18.00%	1451807.28	0.00	0.00	9517403.28
B4	Piling work for tower in case of marshy, low bearing soils locations and/or special towers, where shallow foundation could not be adopted (No. of Tower locations) (Please refer Vol-II, Chapter - 8, Tower foundation, Erection, Stringing & Commissioning of line, Supply of towers, Accessories & Fasteners, Clause 14. Special Foundation, Table-4)	Nos.	2	100,000	200000.00	18.00%	36000.00	0.00	0.00	236000.00
C	Work Associated with Tower Erection									
C1	Erection of various type of towers, Gantry, tower parts and tower extension (Complete) with bolts and nuts, Stub including tack welding and supply and application of zinc rich primer and two coats of enamel paint									
	Normal Towers and Gantry	MT	718	6,930	4975740.00	18.00%	895633.20	0.00	0.00	5871373.20
C2	Erection of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.									
	Monopoles and Monopole Extensions	MT	32	15,400	492800.00	18.00%	88704.00	0.00	0.00	581504.00
D	Installation of Earthing of tower including Earth Resistance Measurement and report submission									
	i. Pipe type Earthing	Nos.	79	1,848	145992.00	18.00%	26278.56	0.00	0.00	172270.56
	ii. Counterpoise Earthing	Nos.	95	4,620	438900.00	18.00%	79002.00	0.00	0.00	517902.00
E	Installation of the following tower accessories									
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	174	77	13398.00	18.00%	2411.64	0.00	0.00	15809.64
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	174	77	13398.00	18.00%	2411.64	0.00	0.00	15809.64
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets.	348	77	26796.00	18.00%	4823.28	0.00	0.00	31619.28
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets.	174	77	13398.00	18.00%	2411.64	0.00	0.00	15809.64
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets.	174	2,310	401940.00	18.00%	72349.20	0.00	0.00	474289.20
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets.	232	77	17864.00	18.00%	3215.52	0.00	0.00	21079.52
F	Installation of Line Insulator, Conductor and OPGW									
F1	Installation of insulator strings complete with arcing horns & necessary hardware and fittings, installing & stringing of conductor including fixing of conductor accessories	km	45	84,700	3811500.00	18.00%	686070.00	0.00	0.00	4497570.00
F2	Installation & stringing of OPGW with jointing and termination kit complete along with necessary hardware and accessories as per approved specification including jointing, fixing of OPGW accessories, etc.	km	45	30,800	1386000.00	18.00%	249480.00	0.00	0.00	1635480.00
	TOTAL				38695923.00		6965266.14	0.00	0.00	45661189.14

Bidder Name :

R.S. INFRAPROJECTS PVT. LTD.

Bidder Signature:



NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

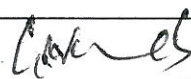
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and/or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. In case of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. In case of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.



SCHEDULE-5 : Grand Summary for Transmission Line from Hansdiha to Jasidih		
Schedule of Quantity & Prices for		
Supply, Installation, Testing & Commissioning of		
132kV Double Circuit Single ACSR Panther Transmission Line From Hansdiha to Jasidih		
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project		
0		
Sl. No.	Description	Amount (in Rs.)
		Total
1	Total Supply Price excluding GST (Rs.)-Schedule No. 2	153,525,837.83
2	Total Design service excluding GST (Rs.)-Schedule No. 3	0.00
3	Total Erection, transport and insurance Price excluding GST (Rs.)-Schedule No. 4	38,695,923.00
Grand Total		192,221,760.83
Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.
Bidder Signature:		
NOTE		
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18		
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.		
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.		
3. Bidder to consider the GST rate as applicable.		
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.		

SCHEDULE-6 : Recommended Spare Parts from Hansdiha to Jasidih

Schedule of Quantity & Prices for	
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Supply, Installation, Testing & Commissioning of

132kV Double Circuit Single ACSR Panther Transmission Line From Hansdiha to Jasidih

Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project

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[illegible]

Bidder Name :	R.S. INFRAPROJECTS PVT. LTD.
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Country	Year	Population (millions)	Urban population (millions)	Urban population (%)	Population density (per sq km)	Urban population density (per sq km)	Population growth rate (%)	Urban population growth rate (%)	Population growth rate (%)	Urban population growth rate (%)	Population growth rate (%)	Urban population growth rate (%)
Algeria	1980	10.0	4.0	40.0	100.0	250.0	1.5	2.5	1.5	2.5	1.5	2.5
Algeria	1985	10.5	4.5	42.9	105.0	262.5	1.8	3.0	1.8	3.0	1.8	3.0
Algeria	1990	11.0	5.0	45.5	110.0	275.0	2.1	3.5	2.1	3.5	2.1	3.5
Algeria	1995	11.5	5.5	47.8	115.0	287.5	2.4	4.0	2.4	4.0	2.4	4.0
Algeria	2000	12.0	6.0	50.0	120.0	300.0	2.7	4.5	2.7	4.5	2.7	4.5
Algeria	2005	12.5	6.5	52.0	125.0	312.5	3.0	5.0	3.0	5.0	3.0	5.0
Algeria	2010	13.0	7.0	53.8	130.0	325.0	3.3	5.5	3.3	5.5	3.3	5.5
Algeria	2015	13.5	7.5	55.6	135.0	337.5	3.6	6.0	3.6	6.0	3.6	6.0
Algeria	2020	14.0	8.0	57.1	140.0	350.0	3.9	6.5	3.9	6.5	3.9	6.5
Algeria	2025	14.5	8.5	58.6	145.0	362.5	4.2	7.0	4.2	7.0	4.2	7.0
Algeria	2030	15.0	9.0	60.0	150.0	375.0	4.5	7.5	4.5	7.5	4.5	7.5
Algeria	2035	15.5	9.5	61.3	155.0	387.5	4.8	8.0	4.8	8.0	4.8	8.0
Algeria	2040	16.0	10.0	62.5	160.0	400.0	5.1	8.5	5.1	8.5	5.1	8.5
Algeria	2045	16.5	10.5	63.6	165.0	412.5	5.4	9.0	5.4	9.0	5.4	9.0
Algeria	2050	17.0	11.0	64.7	170.0	425.0	5.7	9.5	5.7	9.5	5.7	9.5
Algeria	2055	17.5	11.5	65.7	175.0	437.5	6.0	10.0	6.0	10.0	6.0	10.0
Algeria	2060	18.0	12.0	66.7	180.0	450.0	6.3	10.5	6.3	10.5	6.3	10.5
Algeria	2065	18.5	12.5	67.6	185.0	462.5	6.6	11.0	6.6	11.0	6.6	11.0
Algeria	2070	19.0	13.0	68.4	190.0	475.0	6.9	11.5	6.9	11.5	6.9	11.5
Algeria	2075	19.5	13.5	69.2	195.0	487.5	7.2	12.0	7.2	12.0	7.2	12.0
Algeria	2080	20.0	14.0	70.0	200.0	500.0	7.5	12.5	7.5	12.5	7.5	12.5
Algeria	2085	20.5	14.5	70.7	205.0	512.5	7.8	13.0	7.8	13.0	7.8	13.0
Algeria	2090	21.0	15.0	71.4	210.0	525.0	8.1	13.5	8.1	13.5	8.1	13.5
Algeria	2095	21.5	15.5	72.1	215.0	537.5	8.4	14.0	8.4	14.0	8.4	14.0
Algeria	2100	22.0	16.0	72.7	220.0	550.0	8.7	14.5	8.7	14.5	8.7	14.5
Algeria	2105	22.5	16.5	73.3	225.0	562.5	9.0	15.0	9.0	15.0	9.0	15.0
Algeria	2110	23.0	17.0	73.9	230.0	575.0	9.3	15.5	9.3	15.5	9.3	15.5
Algeria	2115	23.5	17.5	74.5	235.0	587.5	9.6	16.0	9.6	16.0	9.6	16.0
Algeria	2120	24.0	18.0	75.0	240.0	600.0	9.9	16.5	9.9	16.5	9.9	16.5
Algeria	2125	24.5	18.5	75.5	245.0	612.5	10.2					

			Ackls
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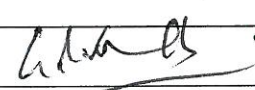
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. Bidder to consider the GST rate as applicable.

3. This schedule will not be included for bid evaluation purpose.

10 11 12

SCHEDULE - 2 : Supply and Mandatory Spare Parts for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-1)								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-1)								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	6	7	8	9
A	Tower, Monopole and Gantry Structure							
A1	Fabrication, Galvanizing and supply of various type of tower & Tower Parts, Gantry, Tower extensions (Complete), Stubs excluding bolts & nuts, Step bolt but including hangers, D-Shackles pack washer etc.							
	i. HT Steel	MT	73	74,000	5402000.00	18.00%	972360.00	6374360.00
	ii. Mild Steel	MT	171	71,000	12141000.00	18.00%	2185380.00	14326380.00
A2	Supply of bolts & nuts including step bolts and spring washers	MT	13	100,000	1300000.00	18.00%	234000.00	1534000.00
A3	Fabrication, Galvanizing and Supply of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.	MT	32	130,000	4160000.00	18.00%	748800.00	4908800.00
A4	Testing Charges for Special type of towers and Monopoles (Refer Note-4 for details)	No.	2	100,000	200000.00	18.00%	36000.00	236000.00
B	EARTHING OF TOWERS							
B1	Supply of Earthing of Towers							
	i. Pipe Type Earthing	Nos.	26	2,826	73476.00	18.00%	13225.68	86701.68
	ii. Counterpoise Earthing	Nos.	31	7,370	228470.00	18.00%	41124.60	269594.60
C	Tower Accessories					18.00%		
C1	Supply of following tower accessories					18.00%		
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	57	240	13680.00	18.00%	2462.40	16142.40
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	57	240	13680.00	18.00%	2462.40	16142.40
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets	114	240	27360.00	18.00%	4924.80	32284.80
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets	57	240	13680.00	18.00%	2462.40	16142.40
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets	57	5,528	315096.00	18.00%	56717.28	371813.28
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets	54	467	25218.00	18.00%	4539.24	29757.24
D	Design, manufacture and Supply of following line materials							
D1	INSULATORS & HARDWARE FITTINGS (including Insulator)							
	i. Single 'I' Suspension (145 kV Silicone composite Long Rod insulator)	Sets	94	3,881	364814.00	18.00%	65666.52	430480.52
	ii. Single Suspension Pilot (145 kV Silicone composite Long Rod insulator)	Sets	34	3,245	110330.00	18.00%	19859.40	130189.40
	iii. Double Suspension (145 kV Silicone composite Long Rod insulator)	Sets	22	7,762	170764.00	18.00%	30737.52	201501.52
	iv. Single Tension (145 kV Silicone composite Long Rod insulator)	Sets	52	3,947	205244.00	18.00%	36943.92	242187.92
	v. Double Tension (145 kV Silicone composite Long Rod insulator)	Sets	210	8,052	1690920.00	18.00%	304365.60	1995285.60
	vi. Single 'I' Suspension (145 kV Long Rod Porcelain insulator)	Sets	38	8,196	311448.00	18.00%	56060.64	367508.64
	vii. Single Suspension Pilot (145 kV Long Rod Porcelain insulator)	Sets	14	7,560	105840.00	18.00%	19051.20	124891.20
	viii. Double Suspension (145 kV Long Rod Porcelain insulator)	Sets	8	16,392	131136.00	18.00%	23604.48	154740.48
	ix. Single Tension (145 kV Long Rod Porcelain insulator)	Sets	20	9,486	189720.00	18.00%	34149.60	223869.60
	x. Double Tension (145 kV Long Rod Porcelain insulator)	Sets	90	19,130	1721700.00	18.00%	309906.00	2031606.00
D2	ACSR Panther for 3 Phase Double Circuit Transmission Line	km	79	155,698	12300142.00	18.00%	2214025.56	14514167.56
D3	OPGW with jointing and termination kit complete along with necessary hardwares and accessories as per approved specification	km	13	181,329	2357277.00	18.00%	424309.86	2781586.86
D4	ACCESSORIES FOR CONDUCTOR (Mid Span compression joint, Repair sleeve, Vibration Damper, etc. complete)	LOT	1	625,328	625328.00	18.00%	112559.04	737887.04
E	Supply of following Aviation Requirements							
E1	Span Markers	Nos.	10	5,792	57920.00	18.00%	10425.60	68345.60
E2	Obstruction Lights (to be provided as per IS 5613)					18.00%		
	i. 1 Medium Intensity + 2 Low Intensity	Sets	5	97,812	489060.00	18.00%	88030.80	577090.80
	ii. 1 Medium Intensity + 4 Low Intensity	Sets	5	100,386	501930.00	18.00%	90347.40	592277.40
F	MANDATORY SPARES							
F1	Line Insulators (all types) (5% of total quantity to be considered)	LOT	1	243,482	243482.00	18.00%	43826.76	287308.76
F2	Conductor Hardware fittings (5% of total quantity to be considered)	LOT	1	87,823	87823.00	18.00%	15808.14	103631.14
F3	OPGW Hardware fittings (5% of total quantity to be considered)	LOT	1	39,244	39243.83	18.00%	7063.89	46307.72
F4	Tower Accessories (5% of total quantity to be considered)	LOT	1	28,419	28419.00	18.00%	5115.42	33534.42
G	MANDATORY TOOLS AND TACKLES							
G1	Aerial Rollers suitable for Single Panther	Nos.	10	4,798	47980.00	18.00%	8636.40	56616.40
G2	Earthwire Rollers	Nos.	5	3,427	17135.00	18.00%	3084.30	20219.30

Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
G3	Single Sheave Pullies	Nos.	5	2,285	11425.00	18.00%	2056.50	13481.50
G4	Safety Belts	Nos.	5	1,942	9710.00	18.00%	1747.80	11457.80
G5	Helmets	Nos.	5	228	1140.00	18.00%	205.20	1345.20
G6	First Aid Kit	Nos.	2	571	1142.00	18.00%	205.56	1347.56
G7	Tool Box	Nos.	2	3,427	6854.00	18.00%	1233.72	8087.72
G8	Drum lifting Jacks for Conductor	Sets	1	62,832	62832.00	18.00%	11309.76	74141.76
G9	Turn Table for Earthwire	Sets	1	36,557	36557.00	18.00%	6580.26	43137.26
G10	Discharge rod with cable	Nos.	2	13,709	27418.00	18.00%	4935.24	32353.24
G11	Fall arrester			-		18.00%		
	i. Mobile type	Sets	2	3,351	6702.00	18.00%	1206.36	7908.36
	ii. Retractable 6m long	Sets	2	11,704	23408.00	18.00%	4213.44	27621.44
G12	Crippling tool for GSW	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G13	Crippling tool for Conductor	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G14	Earth resistivity tester	Sets	1	12,566	12566.00	18.00%	2261.88	14827.88
H	Emergency Restoration System (ERS)	Sets	0	27,000,000	0.00	18.00%	0.00	0.00
TOTAL					46253789.83		8325682.17	54579472.00
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				

NOTE

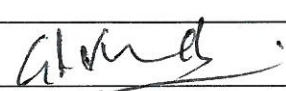
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

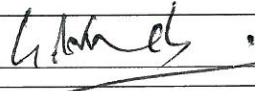
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.

SCHEDULE-3 : Design Services for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-1)								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-1)								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty.	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	6	7	8	9
	DESIGN ENGINEERING charges shall be included in the other schedules. Separate payment shall not be done							
	TOTAL							
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				
NOTE								
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18								
2. Bidder to consider the GST rate as applicable.								
3. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.								





SCHEDULE-4 : Installation and Other Services for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-1)											
Schedule of Quantity & Prices for											
Supply, Installation, Testing & Commissioning of											
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-1)											
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project											
NIT No.											
Sl. No.	Item Description	Unit	Qty	Unit Price (Rs.) without GST	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Transport and Insurance with out GST	Transport and Insurance with GST	Total Erection Price (Rs.) with GST	
1	2	3	4	5	(4x5)	%	(6x7)	9	10	(6+8+10)	
A	Survey										
A1	Check Survey and Field Investigation (Soil Investigation and Soil resistivity measurement)	km	13	9,240	120120.00	18.00%	21621.60	0.00	0.00	141741.60	
B	Work Associated with Tower Foundations										
B1	Excavation in various types of soils										
i.	Dry Soil	Cum	1424	300	427200.00	18.00%	76896.00	0.00	0.00	504096.00	
ii.	Wet Soil	Cum	1109	300	332700.00	18.00%	59886.00	0.00	0.00	392586.00	
iii.	WBC	Cum	602	485	291970.00	18.00%	52554.60	0.00	0.00	344524.60	
iv.	Dry Fissured Rock	Cum	620	485	300700.00	18.00%	54126.00	0.00	0.00	354826.00	
v.	Wet Fissured Rock	Cum	423	562	237726.00	18.00%	42790.68	0.00	0.00	280516.68	
B2	Concreting (Including all associated works related to foundation like benching, foundation protection, etc.)										
i.	M 25 Grade	Cum	115	9,387	1079505.00	18.00%	194310.90	0.00	0.00	1273815.90	
ii.	M 20 Grade	Cum	468	9,033	4227444.00	18.00%	760939.92	0.00	0.00	4988383.92	
iii.	M 10 Grade	Cum	80	7,446	595680.00	18.00%	107222.40	0.00	0.00	702902.40	
B3	Supply and placement of reinforcement steel (Fe500) including installation of stub	MT	51	69,531	3546081.00	18.00%	638294.58	0.00	0.00	4184375.58	
B4	Piling work for tower in case of marshy, low bearing soils locations and/or special towers, where shallow foundation could not be adopted (No. of Tower locations) (Please refer Vol-II, Chapter - 8, Tower foundation, Erection, Stringing & Commissioning of line, Supply of towers, Accessories & Fasteners, Clause 14. Special Foundation, Table-4)	Nos.	2	100,000	200000.00	18.00%	36000.00	0.00	0.00	236000.00	
C	Work Associated with Tower Erection										
C1	Erection of various type of towers, Gantry, tower parts and tower extension (Complete) with bolts and nuts, Stub including tack welding and supply and application of zinc rich primer and two coats of enamel paint										
	Normal Towers and Gantry	MT	257	6,930	1781010.00	18.00%	320581.80	0.00	0.00	2101591.80	
C2	Erection of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.										
	Monopoles and Monopole Extensions	MT	32	15,400	492800.00	18.00%	88704.00	0.00	0.00	581504.00	
D	Installation of Earthing of tower including Earth Resistance Measurement and report submission										
i.	Pipe type Earthing	Nos.	26	1,848	48048.00	18.00%	8648.64	0.00	0.00	56696.64	
ii.	Counterpoise Earthing	Nos.	31	4,620	143220.00	18.00%	25779.60	0.00	0.00	168999.60	
E	Installation of the following tower accessories										
i.	Danger plate with Nuts & Bolts (1 no. per Tower)	Nos.	57	77	4389.00	18.00%	790.02	0.00	0.00	5179.02	
ii.	Number plate with Nuts & Bolts (1 no. per Tower)	Nos.	57	77	4389.00	18.00%	790.02	0.00	0.00	5179.02	
iii.	Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets.	114	77	8778.00	18.00%	1580.04	0.00	0.00	10358.04	
iv.	Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets.	57	77	4389.00	18.00%	790.02	0.00	0.00	5179.02	
v.	Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets.	57	2,310	131670.00	18.00%	23700.60	0.00	0.00	155370.60	
vi.	Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets.	54	77	4158.00	18.00%	748.44	0.00	0.00	4906.44	
F	Installation of Line Insulator, Conductor and OPGW										
F1	Installation of insulator strings complete with arcing horns & necessary hardware and fittings, installing & stringing of conductor including fixing of conductor accessories	km	13	84,700	1101100.00	18.00%	198198.00	0.00	0.00	1299298.00	
F2	Installation & stringing of OPGW with jointing and termination kit complete along with necessary hardware and accessories as per approved specification including jointing, fixing of OPGW accessories, etc.	km	13	30,800	400400.00	18.00%	72072.00	0.00	0.00	472472.00	
TOTAL							15483477.00	2787025.86	0.00	0.00	18270502.86
Bidder Name :				R.S. INFRAPROJECTS PVT. LTD.							
Bidder Signature:											
NOTE											
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18											
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.											
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.											
3. Bidder to consider the GST rate as applicable.											
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. In case of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. In case of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.											

SCHEDULE-5 : Grand Summary for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-1)		
Schedule of Quantity & Prices for		
Supply, Installation, Testing & Commissioning of		
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-1)		
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project		
NIT No.		
Sl. No.	Description	Amount (in Rs.)
		Total
1	Total Supply Price excluding GST (Rs.)-Schedule No. 2	46,253,789.83
2	Total Design service excluding GST (Rs.)-Schedule No. 3	0.00
3	Total Erection, transport and insurance Price excluding GST (Rs.)-Schedule No. 4	15,483,477.00
Grand Total		61,737,266.83
Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.
Bidder Signature:		

NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.

SCHEDULE-6 : Recommended Spare Parts from LILO of Jamtara - Madhupur at Narayanpur (LILO-1)

Schedule of Quantity & Prices for	
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Supply, Installation, Testing & Commissioning of
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132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-1)

Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project

NIT No.

[illegible]

Bidder Name :	R.S. INFRAPROJECTS PVT. LTD.
Bidder Signature:	

NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. Bidder to consider the GST rate as applicable.

3. This schedule will not be included for bid evaluation purpose.

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SCHEDULE - 2 : Supply and Mandatory Spare Parts for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-2)								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-2)								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	(4x5)	%	(6x7)	(6+8)
A	Tower, Monopole and Gantry Structure							
A1	Fabrication, Galvanizing and supply of various type of tower & Tower Parts, Gantry, Tower extensions (Complete), Stubs excluding bolts & nuts, Step bolt but including hangers, D-Shackles pack washer etc.							
i.	HT Steel	MT	77	74,000	5698000.00	18.00%	1025640.00	6723640.00
ii.	Mild Steel	MT	177	71,000	12567000.00	18.00%	2262060.00	14829060.00
A2	Supply of bolts & nuts including step bolts and spring washers	MT	13	100,000	1300000.00	18.00%	234000.00	1534000.00
A3	Fabrication, Galvanizing and Supply of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.	MT	32	130,000	4160000.00	18.00%	748800.00	4908800.00
A4	Testing Charges for Special type of towers and Monopoles (Refer Note-4 for details)	No.	2	100,000	200000.00	18.00%	36000.00	236000.00
B	EARTHING OF TOWERS							
B1	Supply of Earthing of Towers							
i.	Pipe Type Earthing	Nos.	26	2,826	73476.00	18.00%	13225.68	86701.68
ii.	Counterpoise Earthing	Nos.	30	7,370	221100.00	18.00%	39798.00	260898.00
C	Tower Accessories					18.00%		
C1	Supply of following tower accessories					18.00%		
i.	Danger plate with Nuts & Bolts (1 per Tower)	Nos.	56	240	13440.00	18.00%	2419.20	15859.20
ii.	Number plate with Nuts & Bolts (1 per Tower)	Nos.	56	240	13440.00	18.00%	2419.20	15859.20
iii.	Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets	112	240	26880.00	18.00%	4838.40	31718.40
iv.	Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets	56	240	13440.00	18.00%	2419.20	15859.20
v.	Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets	56	5,528	309568.00	18.00%	55722.24	365290.24
vi.	Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets	32	467	14944.00	18.00%	2689.92	17633.92
D	Design, manufacture and Supply of following line materials							
D1	INSULATORS & HARDWARE FITTINGS (including Insulator)							
i.	Single 'I' Suspension (145 kV Silicone composite Long Rod insulator)	Sets	56	3,881	217336.00	18.00%	39120.48	256456.48
ii.	Single Suspension Pilot (145 kV Silicone composite Long Rod insulator)	Sets	34	3,245	110330.00	18.00%	19859.40	130189.40
iii.	Double Suspension (145 kV Silicone composite Long Rod insulator)	Sets	14	7,762	108668.00	18.00%	19560.24	128228.24
iv.	Single Tension (145 kV Silicone composite Long Rod insulator)	Sets	68	3,947	268396.00	18.00%	48311.28	316707.28
v.	Double Tension (145 kV Silicone composite Long Rod insulator)	Sets	278	8,052	2238456.00	18.00%	402922.08	2641378.08
vi.	Single 'I' Suspension (145 kV Long Rod Porcelain insulator)	Sets	22	8,196	180312.00	18.00%	32456.16	212768.16
vii.	Single Suspension Pilot (145 kV Long Rod Porcelain insulator)	Sets	14	7,560	105840.00	18.00%	19051.20	124891.20
viii.	Double Suspension (145 kV Long Rod Porcelain insulator)	Sets	4	16,392	65568.00	18.00%	11802.24	77370.24
ix.	Single Tension (145 kV Long Rod Porcelain insulator)	Sets	28	9,486	265608.00	18.00%	47809.44	313417.44
x.	Double Tension (145 kV Long Rod Porcelain insulator)	Sets	118	19,130	2257340.00	18.00%	406321.20	2663661.20
D2	ACSR Panther for 3 Phase Double Circuit Transmission Line	km	83	155,698	12922934.00	18.00%	2326128.12	15249062.12
D3	OPGW with jointing and termination kit complete along with necessary hardwares and accessories as per approved specification	km	14	181,329	2538606.00	18.00%	456949.08	2995555.08
D4	ACCESSORIES FOR CONDUCTOR (Mid Span compression joint, Repair sleeve, Vibration Damper, etc. complete)	LOT	1	625,328	625328.00	18.00%	112559.04	737887.04
E	Supply of following Aviation Requirements							
E1	Span Markers	Nos.	10	5,792	57920.00	18.00%	10425.60	68345.60
E2	Obstruction Lights (to be provided as per IS 5613)					18.00%		
i.	1 Medium Intensity + 2 Low Intensity	Sets	5	97,812	489060.00	18.00%	88030.80	577090.80
ii.	1 Medium Intensity + 4 Low Intensity	Sets	5	100,386	501930.00	18.00%	90347.40	592277.40
F	MANDATORY SPARES							
F1	Line Insulators (all types) (5% of total quantity to be considered)	LOT	1	243,482	243482.00	18.00%	43826.76	287308.76
F2	Conductor Hardware fittings (5% of total quantity to be considered)	LOT	1	87,823	87823.00	18.00%	15808.14	103631.14
F3	OPGW Hardware fittings (5% of total quantity to be considered)	LOT	1	39,244	39243.83	18.00%	7063.89	46307.72
F4	Tower Accessories (5% of total quantity to be considered)	LOT	1	28,419	28419.00	18.00%	5115.42	33534.42
G	MANDATORY TOOLS AND TACKLES							
G1	Aerial Rollers suitable for Single Panther	Nos.	10	4,798	47980.00	18.00%	8636.40	56616.40
G2	Earthwire Rollers	Nos.	5	3,427	17135.00	18.00%	3084.30	20219.30

Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	6	7	8	9
					(4x5)	%	(6x7)	(6+8)
G3	Single Sheave Pullies	Nos.	5	2,285	11425.00	18.00%	2056.50	13481.50
G4	Safety Belts	Nos.	5	1,942	9710.00	18.00%	1747.80	11457.80
G5	Helmets	Nos.	5	228	1140.00	18.00%	205.20	1345.20
G6	First Aid Kit	Nos.	2	571	1142.00	18.00%	205.56	1347.56
G7	Tool Box	Nos.	2	3,427	6854.00	18.00%	1233.72	8087.72
G8	Drum lifting Jacks for Conductor	Sets	1	62,832	62832.00	18.00%	11309.76	74141.76
G9	Turn Table for Earthwire	Sets	1	36,557	36557.00	18.00%	6580.26	43137.26
G10	Discharge rod with cable	Nos.	2	13,709	27418.00	18.00%	4935.24	32353.24
G11	Fall arrester			-	-	18.00%		
	i. Mobile type	Sets	2	3,351	6702.00	18.00%	1206.36	7908.36
	ii. Retractable 6m long	Sets	2	11,704	23408.00	18.00%	4213.44	27621.44
G12	Crippling tool for GSW	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G13	Crippling tool for Conductor	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G14	Earth resistivity tester	Sets	1	12,566	12566.00	18.00%	2261.88	14827.88
H	Emergency Restoration System (ERS)	Sets	0	27,000,000	0.00	18.00%	0.00	0.00
TOTAL					48571476.83		8742865.83	57314342.66
Bidder Name :					R.S. INFRAPROJECTS PVT. LTD.			
Bidder Signature:								
NOTE								
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18								
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities. b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.								
3. Bidder to consider the GST rate as applicable.								
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.								

SCHEDULE-3 : Design Services for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-2)								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-2)								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty.	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	6	7	8	9
DESIGN ENGINEERING charges shall be included in the other schedules. Separate payment shall not be done								
TOTAL								
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				
NOTE								
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18								
2. Bidder to consider the GST rate as applicable.								
3. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.								





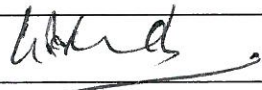
SCHEDULE-4 : Installation and Other Services for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-2)										
Schedule of Quantity & Prices for										
Supply, Installation, Testing & Commissioning of										
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-2)										
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project										

NIT No.										
Sl. No.	Item Description	Unit	Qty	Unit Price (Rs.) without GST	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Transport and Insurance with out GST	Transport and Insurance with GST	Total Erection Price (Rs.) with GST
1	2	3	4	5	(4x5)	%	(6x7)			(6+8+10)
A	Survey									
A1	Check Survey and Field Investigation (Soil Investigation and Soil resistivity measurement)	km	13	9,240	120120.00	18.00%	21621.60	0.00	0.00	141741.60
B	Work Associated with Tower Foundations			-						
B1	Excavation in various types of soils			-						
	i. Dry Soil	Cum	1520	300	456000.00	18.00%	82080.00	0.00	0.00	538080.00
	ii. Wet Soil	Cum	1207	300	362100.00	18.00%	65178.00	0.00	0.00	427278.00
	iii. WBC	Cum	653	485	316705.00	18.00%	57006.90	0.00	0.00	373711.90
	iv. Dry Fissured Rock	Cum	714	485	346290.00	18.00%	62332.20	0.00	0.00	408622.20
	v. Wet Fissured Rock	Cum	480	562	269760.00	18.00%	48556.80	0.00	0.00	318316.80
B2	Concreting (Including all associated works related to foundation like benching, foundation protection, etc.)			-						
	i. M 25 Grade	Cum	115	9,387	1079505.00	18.00%	194310.90	0.00	0.00	1273815.90
	ii. M 20 Grade	Cum	511	9,033	4615863.00	18.00%	830855.34	0.00	0.00	5446718.34
	iii. M 10 Grade	Cum	86	7,446	640356.00	18.00%	115264.08	0.00	0.00	755620.08
B3	Supply and placement of reinforcement steel (Fe500) including installation of stub	MT	54	69,531	3754674.00	18.00%	675841.32	0.00	0.00	4430515.32
B4	Piling work for tower in case of marshy, low bearing soils locations and/or special towers, where shallow foundation could not be adopted (No. of Tower locations) (Please refer Vol-II, Chapter - 8, Tower foundation, Erection, Stringing & Commissioning of line, Supply of towers, Accessories & Fasteners, Clause 14. Special Foundation, Table-4)	Nos.	2	100,000	200000.00	18.00%	36000.00	0.00	0.00	236000.00
C	Work Associated with Tower Erection			-						
C1	Erection of various type of towers, Gantry, tower parts and tower extension (Complete) with bolts and nuts, Stub including tack welding and supply and application of zinc rich primer and two coats of enamel paint			-						
	Normal Towers and Gantry	MT	267	6,930	1850310.00	18.00%	333055.80	0.00	0.00	2183365.80
C2	Erection of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.			-						
	Monopoles and Monopole Extensions	MT	32	15,400	492800.00	18.00%	88704.00	0.00	0.00	581504.00
D	Installation of Earthing of tower including Earth Resistance Measurement and report submission			-						
	i. Pipe type Earthing	Nos.	26	1,848	48048.00	18.00%	8648.64	0.00	0.00	56696.64
	ii. Counterpoise Earthing	Nos.	30	4,620	138600.00	18.00%	24948.00	0.00	0.00	163548.00
E	Installation of the following tower accessories			-						
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	56	77	4312.00	18.00%	776.16	0.00	0.00	5088.16
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	56	77	4312.00	18.00%	776.16	0.00	0.00	5088.16
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets.	112	77	8624.00	18.00%	1552.32	0.00	0.00	10176.32
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets.	56	77	4312.00	18.00%	776.16	0.00	0.00	5088.16
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets.	56	2,310	129360.00	18.00%	23284.80	0.00	0.00	152644.80
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets.	32	77	2464.00	18.00%	443.52	0.00	0.00	2907.52
F	Installation of Line Insulator, Conductor and OPGW			-						
F1	Installation of insulator strings complete with arcing horns & necessary hardware and fittings, installing & stringing of conductor including fixing of conductor accessories	km	13	84,700	1101100.00	18.00%	198198.00	0.00	0.00	1299298.00
F2	Installation & stringing of OPGW with jointing and termination kit complete along with necessary hardware and accessories as per approved specification including jointing, fixing of OPGW accessories, etc.	km	13	30,800	400400.00	18.00%	72072.00	0.00	0.00	472472.00
TOTAL					16346015.00		2942282.70	0.00	0.00	19288297.70

Bidder Name :				R.S. INFRAPROJECTS PVT. LTD.						
Bidder Signature:										

NOTE										
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18										
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.										
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.										
3. Bidder to consider the GST rate as applicable.										
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. In case of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. In case of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.										

SCHEDULE-5 : Grand Summary for Transmission Line from LILO of Jamtara - Madhupur at Narayanpur (LILO-2)		
Schedule of Quantity & Prices for		
Supply, Installation, Testing & Commissioning of		
132kV Double Circuit Single ACSR Panther Transmission Line From LILO of Jamtara - Madhupur at Narayanpur (LILO-2)		
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project		
NIT No.		
Sl. No.	Description	Amount (in Rs.)
		Total
1	Total Supply Price excluding GST (Rs.)-Schedule No. 2	48,571,476.83
2	Total Design service excluding GST (Rs.)-Schedule No. 3	0.00
3	Total Erection, transport and insurance Price excluding GST (Rs.)-Schedule No. 4	16,346,015.00
Grand Total		64,917,491.83
Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.
Bidder Signature:		

NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

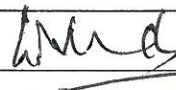
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.

SCHEDULE - 2 : Supply and Mandatory Spare Parts for Transmission Line from S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
A	Tower, Monopole and Gantry Structure							
A1	Fabrication, Galvanizing and supply of various type of tower & Tower Parts, Gantry, Tower extensions (Complete), Stubs excluding bolts & nuts, Step bolt but including hangers, D-Shackles pack washer etc.							
i.	HT Steel	MT	36	74,000	2664000.00	18.00%	479520.00	3143520.00
ii.	Mild Steel	MT	86	71,000	6106000.00	18.00%	1099080.00	7205080.00
A2	Supply of bolts & nuts including step bolts and spring washers	MT	6	100,000	600000.00	18.00%	108000.00	708000.00
A3	Fabrication, Galvanizing and Supply of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.	MT	0	130,000	0.00	18.00%	0.00	0.00
A4	Testing Charges for Special type of towers and Monopoles (Refer Note-4 for details)	No.	2	100,000	200000.00	18.00%	36000.00	236000.00
B	EARTHING OF TOWERS							
B1	Supply of Earthing of Towers							
i.	Pipe Type Earthing	Nos.	10	2,826	28260.00	18.00%	5086.80	33346.80
ii.	Counterpoise Earthing	Nos.	11	7,370	81070.00	18.00%	14592.60	95662.60
C	Tower Accessories					18.00%		
C1	Supply of following tower accessories					18.00%		
i.	Danger plate with Nuts & Bolts (1 per Tower)	Nos.	21	240	5040.00	18.00%	907.20	5947.20
ii.	Number plate with Nuts & Bolts (1 per Tower)	Nos.	21	240	5040.00	18.00%	907.20	5947.20
iii.	Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets	42	240	10080.00	18.00%	1814.40	11894.40
iv.	Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets	21	240	5040.00	18.00%	907.20	5947.20
v.	Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets	21	5,528	116088.00	18.00%	20895.84	136983.84
vi.	Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets	8	467	3736.00	18.00%	672.48	4408.48
D	Design, manufacture and Supply of following line materials							
D1	INSULATORS & HARDWARE FITTINGS (including Insulator)							
i.	Single 'I' Suspension (145 kV Silicone composite Long Rod insulator)	Sets	14	3,881	54334.00	18.00%	9780.12	64114.12
ii.	Single Suspension Pilot (145 kV Silicone composite Long Rod insulator)	Sets	52	3,245	168740.00	18.00%	30373.20	199113.20
iii.	Double Suspension (145 kV Silicone composite Long Rod insulator)	Sets	6	7,762	46572.00	18.00%	8382.96	54954.96
iv.	Single Tension (145 kV Silicone composite Long Rod insulator)	Sets	30	3,947	118410.00	18.00%	21313.80	139723.80
v.	Double Tension (145 kV Silicone composite Long Rod insulator)	Sets	122	8,052	982344.00	18.00%	176821.92	1159165.92
vi.	Single 'I' Suspension (145 kV Long Rod Porcelain insulator)	Sets	4	8,196	32784.00	18.00%	5901.12	38685.12
vii.	Single Suspension Pilot (145 kV Long Rod Porcelain insulator)	Sets	20	7,560	151200.00	18.00%	27216.00	178416.00
viii.	Double Suspension (145 kV Long Rod Porcelain insulator)	Sets	0	16,392	0.00	18.00%	0.00	0.00
ix.	Single Tension (145 kV Long Rod Porcelain insulator)	Sets	12	9,486	113832.00	18.00%	20489.76	134321.76
x.	Double Tension (145 kV Long Rod Porcelain insulator)	Sets	52	19,130	994760.00	18.00%	179056.80	1173816.80
D2	ACSR Panther for 3 Phase Double Circuit Transmission Line	km	22	155,698	3425356.00	18.00%	616564.08	4041920.08
D3	OPGW with jointing and termination kit complete along with necessary hardwares and accessories as per approved specification	km	4	181,329	725316.00	18.00%	130556.88	855872.88
D4	ACCESSORIES FOR CONDUCTOR (Mid Span compression joint, Repair sleeve, Vibration Damper, etc. complete)	LOT	1	625,328	625328.00	18.00%	112559.04	737887.04
E	Supply of following Aviation Requirements							
E1	Span Markers	Nos.	10	5,792	57920.00	18.00%	10425.60	68345.60
E2	Obstruction Lights (to be provided as per IS 5613)					18.00%		
i.	1 Medium Intensity + 2 Low Intensity	Sets	5	97,812	489060.00	18.00%	88030.80	577090.80
ii.	1 Medium Intensity + 4 Low Intensity	Sets	5	100,386	501930.00	18.00%	90347.40	592277.40
F	MANDATORY SPARES							
F1	Line Insulators (all types) (5% of total quantity to be considered)	LOT	1	243,482	243482.00	18.00%	43826.76	287308.76
F2	Conductor Hardware fittings (5% of total quantity to be considered)	LOT	1	87,823	87823.00	18.00%	15808.14	103631.14
F3	OPGW Hardware fittings (5% of total quantity to be considered)	LOT	1	39,244	39243.83	18.00%	7063.89	46307.72
F4	Tower Accessories (5% of total quantity to be considered)	LOT	1	28,419	28419.00	18.00%	5115.42	33534.42
G	MANDATORY TOOLS AND TACKLES							
G1	Aerial Rollers suitable for Single Panther	Nos.	10	4,798	47980.00	18.00%	8636.40	56616.40
G2	Earthwire Rollers	Nos.	5	3,427	17135.00	18.00%	3084.30	20219.30

Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
G3	Single Sheave Pullies	Nos.	5	2,285	11425.00	18.00%	2056.50	13481.50
G4	Safety Belts	Nos.	5	1,942	9710.00	18.00%	1747.80	11457.80
G5	Helmets	Nos.	5	228	1140.00	18.00%	205.20	1345.20
G6	First Aid Kit	Nos.	2	571	1142.00	18.00%	205.56	1347.56
G7	Tool Box	Nos.	2	3,427	6854.00	18.00%	1233.72	8087.72
G8	Drum lifting Jacks for Conductor	Sets	1	62,832	62832.00	18.00%	11309.76	74141.76
G9	Turn Table for Earthwire	Sets	1	36,557	36557.00	18.00%	6580.26	43137.26
G10	Discharge rod with cable	Nos.	2	13,709	27418.00	18.00%	4935.24	32353.24
G11	Fall arrester			-		18.00%		
	i. Mobile type	Sets	2	3,351	6702.00	18.00%	1206.36	7908.36
	ii. Retractable 6m long	Sets	2	11,704	23408.00	18.00%	4213.44	27621.44
G12	Crippling tool for GSW	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G13	Crippling tool for Conductor	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G14	Earth resistivity tester	Sets	1	12,566	12566.00	18.00%	2261.88	14827.88
H	Emergency Restoration System (ERS)	Sets	0	27,000,000	0.00	18.00%	0.00	0.00
TOTAL					19318796.83		3477383.43	22796180.26
Bidder Name :					R.S. INFRAPROJECTS PVT. LTD.			
Bidder Signature:								

NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

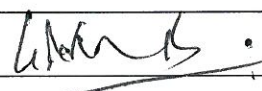
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.



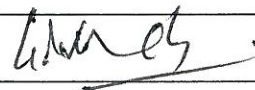


SCHEDULE-3 : Design Services for Transmission Line from S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty.	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
DESIGN ENGINEERING charges shall be included in the other schedules. Separate payment shall not be done								
TOTAL								
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				
NOTE 1. All rates and prices shall be specified in Rs. only in accordance with ITB 18 2. Bidder to consider the GST rate as applicable. 3. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.								





SCHEDULE-4 : Installation and Other Services for Transmission Line from S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha										
Schedule of Quantity & Prices for										
Supply, Installation, Testing & Commissioning of										
132kV Double Circuit Single ACSR Panther Transmission Line From S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha										
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project										
NIT No.										
Sl. No.	Item Description	Unit	Qty	Unit Price (Rs.) without GST	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Transport and Insurance with out GST	Transport and Insurance with GST	Total Erection Price (Rs.) with GST
1	2	3	4	5	6	7	8	9	10	11
A	Survey									
A1	Check Survey and Field Investigation (Soil Investigation and Soil resistivity measurement)	km	3	9,240	27720.00	18.00%	4989.60	0.00	0.00	32709.60
B	Work Associated with Tower Foundations			-						
B1	Excavation in various types of soils			-						
	i. Dry Soil	Cum	669	300	200700.00	18.00%	36126.00	0.00	0.00	236826.00
	ii. Wet Soil	Cum	582	300	174600.00	18.00%	31428.00	0.00	0.00	206028.00
	iii. WBC	Cum	306	485	148410.00	18.00%	26713.80	0.00	0.00	175123.80
	iv. Dry Fissured Rock	Cum	368	485	178480.00	18.00%	32126.40	0.00	0.00	210606.40
	v. Wet Fissured Rock	Cum	241	562	135442.00	18.00%	24379.56	0.00	0.00	159821.56
B2	Concreting (Including all associated works related to foundation like benching, foundation protection, etc.)			-						
	i. M 25 Grade	Cum	0	9,387	0.00	18.00%	0.00	0.00	0.00	0.00
	ii. M 20 Grade	Cum	250	9,033	2258250.00	18.00%	406485.00	0.00	0.00	2664735.00
	iii. M 10 Grade	Cum	34	7,446	253164.00	18.00%	45569.52	0.00	0.00	298733.52
B3	Supply and placement of reinforcement steel (Fe500) including installation of stub	MT	20	69,531	1390620.00	18.00%	250311.60	0.00	0.00	1640931.60
B4	Pilling work for tower in case of marshy, low bearing soils locations and/or special towers, where shallow foundation could not be adopted (No. of Tower locations) (Please refer Vol-II, Chapter - 8, Tower foundation, Erection, Stringing & Commissioning of line, Supply of towers, Accessories & Fasteners, Clause 14. Special Foundation, Table 4)	Nos.	2	100,000	200000.00	18.00%	36000.00	0.00	0.00	236000.00
C	Work Associated with Tower Erection			-						
C1	Erection of various type of towers, Gantry, tower parts and tower extension (Complete) with bolts and nuts, Stub including tack welding and supply and application of zinc rich primer and two coats of enamel paint			-						
C2	Normal Towers and Gantry	MT	129	6,930	893970.00	18.00%	160914.60	0.00	0.00	1054884.60
	Erection of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.			-						
	Monopoles and Monopole Extensions	MT	0	15,400	0.00	18.00%	0.00	0.00	0.00	0.00
D	Installation of Earthing of tower including Earth Resistance Measurement and report submission			-						
	i. Pipe type Earthing	Nos.	10	1,848	18480.00	18.00%	3326.40	0.00	0.00	21806.40
	ii. Counterpoise Earthing	Nos.	11	4,620	50820.00	18.00%	9147.60	0.00	0.00	59967.60
E	Installation of the following tower accessories			-				0.00	0.00	
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	21	77	1617.00	18.00%	291.06	0.00	0.00	1908.06
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	21	77	1617.00	18.00%	291.06	0.00	0.00	1908.06
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets.	42	77	3234.00	18.00%	582.12	0.00	0.00	3816.12
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets.	21	77	1617.00	18.00%	291.06	0.00	0.00	1908.06
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets.	21	2,310	48510.00	18.00%	8731.80	0.00	0.00	57241.80
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets.	8	77	616.00	18.00%	110.88	0.00	0.00	726.88
F	Installation of Line Insulator, Conductor and OPGW			-						
F1	Installation of insulator strings complete with arcing horns & necessary hardware and fittings, installing & stringing of conductor including fixing of conductor accessories	km	3	84,700	254100.00	18.00%	45738.00	0.00	0.00	299838.

SCHEDULE-5 : Grand Summary for Transmission Line from S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha		
Schedule of Quantity & Prices for		
Supply, Installation, Testing & Commissioning of		
132kV Double Circuit Single ACSR Panther Transmission Line From S/C LILO of Lalmatia-Dumka Tr. Line at Hansdiha		
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project		
NIT No.		
Sl. No.	Description	Amount (in Rs.)
		Total
1	Total Supply Price excluding GST (Rs.)-Schedule No. 2	19,318,796.83
2	Total Design service excluding GST (Rs.)-Schedule No. 3	0.00
3	Total Erection, transport and insurance Price excluding GST (Rs.)-Schedule No. 4	6,334,367.00
Grand Total		25,653,163.83
Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.
Bidder Signature:		

NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.

SCHEDULE - 2 : Supply and Mandatory Spare Parts for Transmission Line from Sarath to Chitra								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Chitra								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	(4x5)	%	(6x7)	(6+8)
A	Tower, Monopole and Gantry Structure							
A1	Fabrication, Galvanizing and supply of various type of tower & Tower Parts, Gantry, Tower extensions (Complete), Stubs excluding bolts & nuts, Step bolt but including hangers, D-Shackles pack washer etc.							
	i. HT Steel	MT	97	74,000	7178000.00	18.00%	1292040.00	8470040.00
	ii. Mild Steel	MT	226	71,000	16046000.00	18.00%	2888280.00	18934280.00
A2	Supply of bolts & nuts including step bolts and spring washers	MT	18	100,000	1800000.00	18.00%	324000.00	2124000.00
A3	Fabrication, Galvanizing and Supply of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.	MT	32	130,000	4160000.00	18.00%	748800.00	4908800.00
A4	Testing Charges for Special type of towers and Monopoles (Refer Note-4 for details)	No.	2	100,000	200000.00	18.00%	36000.00	236000.00
B	EARTHING OF TOWERS							
B1	Supply of Earthing of Towers							
	i. Pipe Type Earthing	Nos.	34	2,826	96084.00	18.00%	17295.12	113379.12
	ii. Counterpoise Earthing	Nos.	41	7,370	302170.00	18.00%	54390.60	356560.60
C	Tower Accessories					18.00%		
C1	Supply of following tower accessories					18.00%		
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	75	240	18000.00	18.00%	3240.00	21240.00
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	75	240	18000.00	18.00%	3240.00	21240.00
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets	150	240	36000.00	18.00%	6480.00	42480.00
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets	75	240	18000.00	18.00%	3240.00	21240.00
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets	75	5,528	414600.00	18.00%	74628.00	489228.00
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets	64	467	29888.00	18.00%	5379.84	35267.84
D	Design, manufacture and Supply of following line materials							
D1	INSULATORS & HARDWARE FITTINGS (including Insulator)							
	i. Single 'I' Suspension (145 kV Silicone composite Long Rod insulator)	Sets	110	3,881	426910.00	18.00%	76843.80	503753.80
	ii. Single Suspension Pilot (145 kV Silicone composite Long Rod insulator)	Sets	60	3,245	194700.00	18.00%	35046.00	229746.00
	iii. Double Suspension (145 kV Silicone composite Long Rod insulator)	Sets	26	7,762	201812.00	18.00%	36326.16	238138.16
	iv. Single Tension (145 kV Silicone composite Long Rod insulator)	Sets	74	3,947	292078.00	18.00%	52574.04	344652.04
	v. Double Tension (145 kV Silicone composite Long Rod insulator)	Sets	298	8,052	2399496.00	18.00%	431909.28	2831405.28
	vi. Single 'I' Suspension (145 kV Long Rod Porcelain insulator)	Sets	46	8,196	377016.00	18.00%	67862.88	444878.88
	vii. Single Suspension Pilot (145 kV Long Rod Porcelain insulator)	Sets	24	7,560	181440.00	18.00%	32659.20	214099.20
	viii. Double Suspension (145 kV Long Rod Porcelain insulator)	Sets	10	16,392	163920.00	18.00%	29505.60	193425.60
	ix. Single Tension (145 kV Long Rod Porcelain insulator)	Sets	30	9,486	284580.00	18.00%	51224.40	335804.40
	x. Double Tension (145 kV Long Rod Porcelain insulator)	Sets	126	19,130	2410380.00	18.00%	433868.40	2844248.40
D2	ACSR Panther for 3 Phase Double Circuit Transmission Line	km	95	155,698	14791310.00	18.00%	2662435.80	17453745.80
D3	OPGW with jointing and termination kit complete along with necessary hardwares and accessories as per approved specification	km	16	181,329	2901264.00	18.00%	522227.52	3423491.52
D4	ACCESSORIES FOR CONDUCTOR (Mid Span compression joint, Repair sleeve, Vibration Damper, etc. complete)	LOT	1	625,328	625328.00	18.00%	112559.04	737887.04
E	Supply of following Aviation Requirements							
E1	Span Markers	Nos.	10	5,792	57920.00	18.00%	10425.60	68345.60
E2	Obstruction Lights (to be provided as per IS 5613)					18.00%		
	i. 1 Medium Intensity + 2 Low Intensity	Sets	5	97,812	489060.00	18.00%	88030.80	577090.80
	ii. 1 Medium Intensity + 4 Low Intensity	Sets	5	100,386	501930.00	18.00%	90347.40	592277.40
F	MANDATORY SPARES							
F1	Line Insulators (all types) (5% of total quantity to be considered)	LOT	1	243,482	243482.00	18.00%	43826.76	287308.76
F2	Conductor Hardware fittings (5% of total quantity to be considered)	LOT	1	87,823	87823.00	18.00%	15808.14	103631.14
F3	OPGW Hardware fittings (5% of total quantity to be considered)	LOT	1	39,244	39243.83	18.00%	7063.89	46307.72
F4	Tower Accessories (5% of total quantity to be considered)	LOT	1	28,419	28419.00	18.00%	5115.42	33534.42
G	MANDATORY TOOLS AND TACKLES							
G1	Aerial Rollers suitable for Single Panther	Nos.	10	4,798	47980.00	18.00%	8636.40	56616.40
G2	Earthwire Rollers	Nos.	5	3,427	17135.00	18.00%	3084.30	20219.30

Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
G3	Single Sheave Pullies	Nos.	5	2,285	11425.00	18.00%	2056.50	13481.50
G4	Safety Belts	Nos.	5	1,942	9710.00	18.00%	1747.80	11457.80
G5	Helmets	Nos.	5	228	1140.00	18.00%	205.20	1345.20
G6	First Aid Kit	Nos.	2	571	1142.00	18.00%	205.56	1347.56
G7	Tool Box	Nos.	2	3,427	6854.00	18.00%	1233.72	8087.72
G8	Drum lifting Jacks for Conductor	Sets	1	62,832	62832.00	18.00%	11309.76	74141.76
G9	Turn Table for Earthwire	Sets	1	36,557	36557.00	18.00%	6580.26	43137.26
G10	Discharge rod with cable	Nos.	2	13,709	27418.00	18.00%	4935.24	32353.24
G11	Fall arrester					18.00%		
	i. Mobile type	Sets	2	3,351	6702.00	18.00%	1206.36	7908.36
	ii. Retractable 6m long	Sets	2	11,704	23408.00	18.00%	4213.44	27621.44
G12	Crippling tool for GSW	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G13	Crippling tool for Conductor	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G14	Earth resistivity tester	Sets	1	12,566	12566.00	18.00%	2261.88	14827.88
H	Emergency Restoration System (ERS)	Sets	0	27,000,000	0.00	18.00%	0.00	0.00
TOTAL					57622442.83		10372039.71	67994482.54

Bidder Name :

R.S. INFRAPROJECTS PVT. LTD.

Bidder Signature:



NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

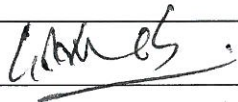
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. In case of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. In case of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.





SCHEDULE-3 : Design Services for Transmission Line from Sarath to Chitra								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Chitra								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty.	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
1	2	3	4	5	6	7	8	9
DESIGN ENGINEERING charges shall be included in the other schedules. Separate payment shall not be done								
TOTAL								
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				
NOTE								
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18								
2. Bidder to consider the GST rate as applicable.								
3. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.								





SCHEDULE-4 : Installation and Other Services for Transmission Line from Sarath to Chitra
Schedule of Quantity & Prices for
Supply, Installation, Testing & Commissioning of
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Chitra
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project

NIT No.										
Sl. No.	Item Description	Unit	Qty	Unit Price (Rs.) without GST	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Transport and Insurance with out GST	Transport and Insurance with GST	Total Erection Price (Rs.) with GST
1	2	3	4	5	(4x5)	%	(6x7)			(6+8+10)
A	Survey									
A1	Check Survey and Field Investigation (Soil Investigation and Soil resistivity measurement)	km	15	9,240	138600.00	18.00%	24948.00	0.00	0.00	163548.00
B	Work Associated with Tower Foundations									
B1	Excavation in various types of soils									
	i. Dry Soil	Cum	2076	300	622800.00	18.00%	112104.00	0.00	0.00	734904.00
	ii. Wet Soil	Cum	1500	300	450000.00	18.00%	81000.00	0.00	0.00	531000.00
	iii. WBC	Cum	808	485	391880.00	18.00%	70538.40	0.00	0.00	462418.40
	iv. Dry Fissured Rock	Cum	854	485	414190.00	18.00%	74554.20	0.00	0.00	488744.20
	v. Wet Fissured Rock	Cum	578	562	324836.00	18.00%	58470.48	0.00	0.00	383306.48
B2	Concreting (Including all associated works related to foundation like benching, foundation protection, etc.)									
	i. M 25 Grade	Cum	115	9,387	1079505.00	18.00%	194310.90	0.00	0.00	1273815.90
	ii. M 20 Grade	Cum	653	9,033	5898549.00	18.00%	1061738.82	0.00	0.00	6960287.82
	iii. M 10 Grade	Cum	105	7,446	781830.00	18.00%	140729.40	0.00	0.00	922559.40
B3	Supply and placement of reinforcement steel (Fe500) including installation of stub	MT	67	69,531	4658577.00	18.00%	838543.86	0.00	0.00	5497120.86
B4	Piling work for tower in case of marshy, low bearing soils locations and/or special towers, where shallow foundation could not be adopted (No. of Tower locations) (Please refer Vol-II, Chapter - 8, Tower foundation, Erection, Stringing & Commissioning of line, Supply of towers, Accessories & Fasteners, Clause 14. Special Foundation, Table 4)	Nos.	2	100,000	200000.00	18.00%	36000.00	0.00	0.00	236000.00
C	Work Associated with Tower Erection									
C1	Erection of various type of towers, Gantry, tower parts and tower extension (Complete) with bolts and nuts, Stub including tack welding and supply and application of zinc rich primer and two coats of enamel paint									
	Normal Towers and Gantry	MT	341	6,930	2363130.00	18.00%	425363.40	0.00	0.00	2788493.40
C2	Erection of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.									
	Monopoles and Monopole Extensions	MT	32	15,400	492800.00	18.00%	88704.00	0.00	0.00	581504.00
D	Installation of Earthing of tower including Earth Resistance Measurement and report submission									
	i. Pipe type Earthing	Nos.	34	1,848	62832.00	18.00%	11309.76	0.00	0.00	74141.76
	ii. Counterpoise Earthing	Nos.	41	4,620	189420.00	18.00%	34095.60	0.00	0.00	223515.60
E	Installation of the following tower accessories									
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	75	77	5775.00	18.00%	1039.50	0.00	0.00	6814.50
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	75	77	5775.00	18.00%	1039.50	0.00	0.00	6814.50
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets.	150	77	11550.00	18.00%	2079.00	0.00	0.00	13629.00
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets.	75	77	5775.00	18.00%	1039.50	0.00	0.00	6814.50
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets.	75	2,310	173250.00	18.00%	31185.00	0.00	0.00	204435.00
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets.	64	77	4928.00	18.00%	887.04	0.00	0.00	5815.04
F	Installation of Line Insulator, Conductor and OPGW									
F1	Installation of insulator strings complete with arcing horns & necessary hardware and fittings, installing & stringing of conductor including fixing of conductor accessories	km	15	84,700	1270500.00	18.00%	228690.00	0.00	0.00	1499190.00
F2	Installation & stringing of OPGW with jointing and termination kit complete along with necessary hardware and accessories as per approved specification including jointing, fixing of OPGW accessories, etc.	km	15	30,800	462000.00	18.00%	83160.00	0.00	0.00	545160.00
TOTAL					20008502.00		3601530.36	0.00	0.00	23610032.36

Bidder Name :

R.S. INFRAPROJECTS PVT. LTD.

Bidder Signature:



NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

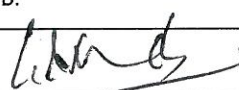
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. In case of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. In case of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.





SCHEDULE-5 : Grand Summary for Transmission Line from Sarath to Chitra		
Schedule of Quantity & Prices for		
Supply, Installation, Testing & Commissioning of		
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Chitra		
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project		
NIT No.		
Sl. No.	Description	Amount (in Rs.)
		Total
1	Total Supply Price excluding GST (Rs.)-Schedule No. 2	57,622,442.83
2	Total Design service excluding GST (Rs.)-Schedule No. 3	0.00
3	Total Erection, transport and insurance Price excluding GST (Rs.)-Schedule No. 4	20,008,502.00
Grand Total		77,630,944.83
		Bidder Name : R.S. INFRAPROJECTS PVT. LTD.
		Bidder Signature: 
NOTE		
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18		
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.		
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.		
3. Bidder to consider the GST rate as applicable.		
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.		

Schedule of Quantity & Prices for

132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Chitra

NIT No.

Total

R.S. INFRAPROJECTS PVT. LTD.

Anten

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

3. This schedule will not be included for bid evaluation purpose.





SCHEDULE - 2 : Supply and Mandatory Spare Parts for Transmission Line from Sarath to Palojori								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Palojori								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
A	Tower, Monopole and Gantry Structure							
A1	Fabrication, Galvanizing and supply of various type of tower & Tower Parts, Gantry, Tower extensions (Complete), Stubs excluding bolts & nuts, Step bolt but including hangers, D-Shackles pack washer etc.							
	i. HT Steel	MT	111	74,000	8214000.00	18.00%	1478520.00	9692520.00
	ii. Mild Steel	MT	260	71,000	18460000.00	18.00%	3322800.00	21782800.00
A2	Supply of bolts & nuts including step bolts and spring washers	MT	21	100,000	2100000.00	18.00%	378000.00	2478000.00
A3	Fabrication, Galvanizing and Supply of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.	MT	32	130,000	4160000.00	18.00%	748800.00	4908800.00
A4	Testing Charges for Special type of towers and Monopoles (Refer Note-4 for details)	No.	2	100,000	200000.00	18.00%	36000.00	236000.00
B	EARTHING OF TOWERS							
B1	Supply of Earthing of Towers							
	i. Pipe Type Earthing	Nos.	41	2,826	115866.00	18.00%	20855.88	136721.88
	ii. Counterpoise Earthing	Nos.	49	7,370	361130.00	18.00%	65003.40	426133.40
C	Tower Accessories					18.00%		
C1	Supply of following tower accessories					18.00%		
	i. Danger plate with Nuts & Bolts (1 per Tower)	Nos.	90	240	21600.00	18.00%	3888.00	25488.00
	ii. Number plate with Nuts & Bolts (1 per Tower)	Nos.	90	240	21600.00	18.00%	3888.00	25488.00
	iii. Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets	180	240	43200.00	18.00%	7776.00	50976.00
	iv. Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets	90	240	21600.00	18.00%	3888.00	25488.00
	v. Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets	90	5,528	497520.00	18.00%	89553.60	587073.60
	vi. Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets	98	467	45766.00	18.00%	8237.88	54003.88
D	Design, manufacture and Supply of following line materials							
D1	INSULATORS & HARDWARE FITTINGS (including Insulator)							
	i. Single 'I' Suspension (145 kV Silicone composite Long Rod insulator)	Sets	164	3,881	636484.00	18.00%	114567.12	751051.12
	ii. Single Suspension Pilot (145 kV Silicone composite Long Rod insulator)	Sets	68	3,245	220660.00	18.00%	39718.80	260378.80
	iii. Double Suspension (145 kV Silicone composite Long Rod insulator)	Sets	42	7,762	326004.00	18.00%	58680.72	384684.72
	iv. Single Tension (145 kV Silicone composite Long Rod insulator)	Sets	70	3,947	276290.00	18.00%	49732.20	326022.20
	v. Double Tension (145 kV Silicone composite Long Rod insulator)	Sets	284	8,052	2286768.00	18.00%	411618.24	2698386.24
	vi. Single 'I' Suspension (145 kV Long Rod Porcelain insulator)	Sets	70	8,196	573720.00	18.00%	103269.60	676989.60
	vii. Single Suspension Pilot (145 kV Long Rod Porcelain insulator)	Sets	28	7,560	211680.00	18.00%	38102.40	249782.40
	viii. Double Suspension (145 kV Long Rod Porcelain insulator)	Sets	18	16,392	295056.00	18.00%	53110.08	348166.08
	ix. Single Tension (145 kV Long Rod Porcelain insulator)	Sets	28	9,486	265608.00	18.00%	47809.44	313417.44
	x. Double Tension (145 kV Long Rod Porcelain insulator)	Sets	120	19,130	2295600.00	18.00%	413208.00	2708808.00
D2	ACSR Panther for 3 Phase Double Circuit Transmission Line	km	125	155,698	19462250.00	18.00%	3503205.00	22965455.00
D3	OPGW with jointing and termination kit complete along with necessary hardwares and accessories as per approved specification	km	21	181,329	3807909.00	18.00%	685423.62	4493332.62
D4	ACCESSORIES FOR CONDUCTOR (Mid Span compression joint, Repair sleeve, Vibration Damper, etc. complete)	LOT	1	625,328	625328.00	18.00%	112559.04	737887.04
E	Supply of following Aviation Requirements							
E1	Span Markers	Nos.	10	5,792	57920.00	18.00%	10425.60	68345.60
E2	Obstruction Lights (to be provided as per IS 5613)					18.00%		
	i. 1 Medium Intensity + 2 Low Intensity	Sets	5	97,812	489060.00	18.00%	88030.80	577090.80
	ii. 1 Medium Intensity + 4 Low Intensity	Sets	5	100,386	501930.00	18.00%	90347.40	592277.40
F	MANDATORY SPARES							
F1	Line Insulators (all types) (5% of total quantity to be considered)	LOT	1	243,482	243482.00	18.00%	43826.76	287308.76
F2	Conductor Hardware fittings (5% of total quantity to be considered)	LOT	1	87,823	87823.00	18.00%	15808.14	103631.14
F3	OPGW Hardware fittings (5% of total quantity to be considered)	LOT	1	39,244	39243.83	18.00%	7063.89	46307.72
F4	Tower Accessories (5% of total quantity to be considered)	LOT	1	28,419	28419.00	18.00%	5115.42	33534.42
G	MANDATORY TOOLS AND TACKLES							
G1	Aerial Rollers suitable for Single Panther	Nos.	10	4,798	47980.00	18.00%	8636.40	56616.40
G2	Earthwire Rollers	Nos.	5	3,427	17135.00	18.00%	3084.30	20219.30

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Sl. No.	Description	Unit	Qty	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
					(4x5)	%	(6x7)	(6+8)
1	2	3	4	5	6	7	8	9
G3	Single Sheave Pullies	Nos.	5	2,285	11425.00	18.00%	2056.50	13481.50
G4	Safety Belts	Nos.	5	1,942	9710.00	18.00%	1747.80	11457.80
G5	Helmets	Nos.	5	228	1140.00	18.00%	205.20	1345.20
G6	First Aid Kit	Nos.	2	571	1142.00	18.00%	205.56	1347.56
G7	Tool Box	Nos.	2	3,427	6854.00	18.00%	1233.72	8087.72
G8	Drum lifting Jacks for Conductor	Sets	1	62,832	62832.00	18.00%	11309.76	74141.76
G9	Turn Table for Earthwire	Sets	1	36,557	36557.00	18.00%	6580.26	43137.26
G10	Discharge rod with cable	Nos.	2	13,709	27418.00	18.00%	4935.24	32353.24
G11	Fall arrester			-		18.00%		
	i. Mobile type	Sets	2	3,351	6702.00	18.00%	1206.36	7908.36
	ii. Retractable 6m long	Sets	2	11,704	23408.00	18.00%	4213.44	27621.44
G12	Crippling tool for GSW	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G13	Crippling tool for Conductor	Sets	1	171,360	171360.00	18.00%	30844.80	202204.80
G14	Earth resistivity tester	Sets	1	12,566	12566.00	18.00%	2261.88	14827.88
H	Emergency Restoration System (ERS)	Sets	0	27,000,000	0.00	18.00%	0.00	0.00
TOTAL					67601105.83		12168199.05	79769304.88
Bidder Name :					R.S. INFRAPROJECTS PVT. LTD.			
Bidder Signature:								

NOTE

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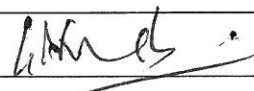
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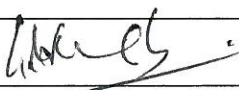
  

SCHEDULE-3 : Design Services for Transmission Line from Sarath to Palojori								
Schedule of Quantity & Prices for								
Supply, Installation, Testing & Commissioning of								
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Palojori								
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project								
NIT No.								
Sl. No.	Description	Unit	Qty.	Unit Price (Rs.)	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Total Price (Rs.) with GST
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DESIGN ENGINEERING charges shall be included in the other schedules. Separate payment shall not be done								
TOTAL								
				Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.		
				Bidder Signature:				
NOTE								
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SCHEDULE-4 : Installation and Other Services for Transmission Line from Sarath to Palajori										
Schedule of Quantity & Prices for										
Supply, Installation, Testing & Commissioning of										
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Palajori										
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project										
NIT No.										
Sl. No.	Item Description	Unit	Qty	Unit Price (Rs.) without GST	Total Price (Rs.) without GST	GST Rate	GST Amount (Rs.)	Transport and Insurance with out GST	Transport and Insurance with GST	Total Erection Price (Rs.) with GST
1	2	3	4	5	6	7	8	9	10	11
A	Survey									
A1	Check Survey and Field Investigation (Soil Investigation and Soil resistivity measurement)	km	20	9,240	184800.00	18.00%	33264.00	0.00	0.00	218064.00
B	Work Associated with Tower Foundations									
B1	Excavation in various types of soils									
i.	Dry Soil	Cum	2192	300	657600.00	18.00%	118368.00	0.00	0.00	775968.00
ii.	Wet Soil	Cum	1769	300	530700.00	18.00%	95526.00	0.00	0.00	626226.00
iii.	WBC	Cum	950	485	460750.00	18.00%	82935.00	0.00	0.00	543685.00
iv.	Dry Fissured Rock	Cum	972	485	471420.00	18.00%	84855.60	0.00	0.00	556275.60
v.	Wet Fissured Rock	Cum	662	562	372044.00	18.00%	66967.92	0.00	0.00	439011.92
B2	Concreting (Including all associated works related to foundation like benching, foundation protection, etc.)									
i.	M 25 Grade	Cum	115	9,387	1079505.00	18.00%	194310.90	0.00	0.00	1273815.90
ii.	M 20 Grade	Cum	741	9,033	6693453.00	18.00%	1204821.54	0.00	0.00	7898274.54
iii.	M 10 Grade	Cum	117	7,446	871182.00	18.00%	156812.76	0.00	0.00	1027994.76
B3	Supply and placement of reinforcement steel (Fe500) including installation of stub	MT	74	69,531	5145294.00	18.00%	926152.92	0.00	0.00	6071446.92
B4	Pilling work for tower in case of marshy, low bearing soils locations and/or special towers, where shallow foundation could not be adopted (No. of Tower locations) (Please refer Vol-II, Chapter - 8, Tower foundation, Erection, Stringing & Commissioning of line, Supply of towers, Accessories & Fasteners, Clause 14. Special Foundation, Table-4)	Nos.	2	100,000	200000.00	18.00%	36000.00	0.00	0.00	236000.00
C	Work Associated with Tower Erection									
C1	Erection of various type of towers, Gantry, tower parts and tower extension (Complete) with bolts and nuts, Stub including tack welding and supply and application of zinc rich primer and two coats of enamel paint									
	Normal Towers and Gantry	MT	392	6,930	2716560.00	18.00%	488980.80	0.00	0.00	3205540.80
C2	Erection of various type of Monopoles, Monopole extensions (Complete), with Nuts and Bolts etc.									
	Monopoles and Monopole Extensions	MT	32	15,400	492800.00	18.00%	88704.00	0.00	0.00	581504.00
D	Installation of Earthing of tower including Earth Resistance Measurement and report submission									
i.	Pipe type Earthing	Nos.	41	1,848	75768.00	18.00%	13638.24	0.00	0.00	89406.24
ii.	Counterpoise Earthing	Nos.	49	4,620	226380.00	18.00%	40748.40	0.00	0.00	267128.40
E	Installation of the following tower accessories									
i.	Danger plate with Nuts & Bolts (1 per Tower)	Nos.	90	77	6930.00	18.00%	1247.40	0.00	0.00	8177.40
ii.	Number plate with Nuts & Bolts (1 per Tower)	Nos.	90	77	6930.00	18.00%	1247.40	0.00	0.00	8177.40
iii.	Phase plate with Nuts & Bolts (Set of 3) (2 no. per D/C Tower)	Sets.	180	77	13860.00	18.00%	2494.80	0.00	0.00	16354.80
iv.	Circuit Plate with Nuts & Bolts (Set of 2) (1 no. per Tower)	Sets.	90	77	6930.00	18.00%	1247.40	0.00	0.00	8177.40
v.	Anti Climbing Devices with Nuts & Bolts (1 no. per Tower)	Sets.	90	2,310	207900.00	18.00%	37422.00	0.00	0.00	245322.00
vi.	Bird Guard with Nuts & Bolts (Set of 3) (2 no. per Tower)	Sets.	98	77	7546.00	18.00%	1358.28	0.00	0.00	8904.28
F	Installation of Line Insulator, Conductor and OPGW									
F1	Installation of insulator strings complete with arcing horns & necessary hardware and fittings, installing & stringing of conductor including fixing of conductor accessories	km	20	84,700	1694000.00	18.00%	304920.00	0.00	0.00	1998920.00
F2	Installation & stringing of OPGW with jointing and termination kit complete along with necessary hardware and accessories as per approved specification including jointing, fixing of OPGW accessories, etc.	km	20	30,800	616000.00	18.00%	110880.00	0.00	0.00	726880.00
TOTAL					22738352.00		4092903.36	0.00	0.00	26831255.36
Bidder Name :				R.S. INFRAPROJECTS PVT. LTD.						
Bidder Signature:										
NOTE										
1. All rates and prices shall be specified in Rs. only in accordance with ITB 18										
2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.										
b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.										
3. Bidder to consider the GST rate as applicable.										
4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.										

SCHEDULE-5 : Grand Summary for Transmission Line from Sarath to Palojori		
Schedule of Quantity & Prices for		
Supply, Installation, Testing & Commissioning of		
132kV Double Circuit Single ACSR Panther Transmission Line From Sarath to Palojori		
Bid Inviting Authority: General Manager, Contracts & Materials, World Bank Funded Project		
NIT No.		
Sl. No.	Description	Amount (in Rs.)
		Total
1	Total Supply Price excluding GST (Rs.)-Schedule No. 2	67,601,105.83
2	Total Design service excluding GST (Rs.)-Schedule No. 3	0.00
3	Total Erection, transport and insurance Price excluding GST (Rs.)-Schedule No. 4	22,738,352.00
Grand Total		90,339,457.83
Bidder Name :		R.S. INFRAPROJECTS PVT. LTD.
Bidder Signature:		

NOTE

1. All rates and prices shall be specified in Rs. only in accordance with ITB 18

2. a). The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Bidder shall remain constant unless there is change made in the Scope of Work by Employer and / or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the bidder shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the bidder, are required for successful completion of the scope of work as per Technical Specification, the Bidder shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the bidders and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the bidder, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities.

b) Items for which no rate or price has been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

3. Bidder to consider the GST rate as applicable.

4. The details of standard towers and foundation will be provided by JUSNL to successful Bidder for execution purpose. Incase of special type of tower, special tower foundation, pile foundation, Monopole, Monopole foundation, Contractor shall design and get it approved from JUSNL. Incase of designed structures, tower testing and inspection shall be in Contractor's scope. Include Price schedule for testing. During bid evaluation, testing charges will be considered.

