

Request for Proposal (RFP)

for

Engagement of Agency for Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar, Simdega, Palamu and Garhwa in Jharkhand.



Tender reference no.: 20/JREDA/SURVEY/SOLAR PARK/21-22

Jharkhand Renewable Energy Development Agency (JREDA)

3rd Floor, S.L.D.C. Building, Kusai Colony, Doranda, Ranchi-834002.

Ph.: 0651-2491161, Fax: 0651-2491165,

E-mail: info@jreda.com; Website: www.jreda.com

Govt. of Jharkhand
Energy Department
Jharkhand Renewable Energy Development Agency (JREDA)
3rd Floor, S.L.D.C. Building, Kusai Colony, Doranda, Ranchi-834002.
Ph.: 0651-2491161, Fax: 0651-2491165,
E-mail: info@jreda.com; Website: www.jreda.com

e-Procurement Notice

Tender reference no.: 20/JREDA/SOLARPARK/SURVEY/21-22

Dated: 23.02.2022

1	Name of the work	Engagement of Agency for Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar, Simdega, Palamu and Garhwa in Jharkhand.
2	Estimated Cost	Rs. 32,00,000 /-
3	Period of work completion	03 (Three) Months
4	Date of publication of NIT on website: http://jharkhandtenders.gov.in	28.02.2022 (Monday)
5	Date & time of Pre-bid meeting	07.03.2022 (Monday) at 1.00 P.M.
6	Last date & time for receipt of online bids	28.03.2022 (Monday) upto 05:00 PM
7	Submission of original copies of Bid fee & EMD (Offline)	28.03.2022 and 29.03.2022 up to 5.00 P.M.
8	Technical Bid Opening Date	30.03.2022 (Wednesday) at 3.00 P.M.
9	Name & address of office inviting tender	Project Director, Jharkhand Renewable Energy Development Agency(JREDA) 3 rd Floor, SLDC Building, Kusai, Doranda, Ranchi- 834002 (Jharkhand)
10	Contact no. of procurement officer	0651-2491167/68/61
11	Helpline no. of e-procurement	0651-2491167/68/61

Any corrigendum/addendum can be seen on website: <http://jharkhandtenders.gov.in> & www.jreda.com. Further details can be seen on website: <http://jharkhandtenders.gov.in> & www.jreda.com

Sd/-
Director,
JREDA, Ranchi

Section -1: List of Important dates & details of Bids

NIB No: 20/JREDA/SURVEY/SOLAR PARK/21-22

1.	Name of work	Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar , Simdega , Palamu and Garhwa in Jharkhand.	
2	Tender reference no.	20/JREDA/SURVEY/SOLAR PARK/21-22	
3	Contract period	1 Year	
4	Mode of submission of tender	Online through www.jharkhandtenders.gov.in	
5	Tentative Quantity	Survey work of Four solar park locations.	
6	Tender fee	Rs. 5,900/- (Five Thousand Nine Hundred) only.	
7	Earnest Money Deposit	Rs. 64,000/- (Rupees Sixty Four Thousand only)	
8	Publishing on website	28.02.2022 (Monday)	
9	Period of downloading of bidding documents	Start date: 04.03.2022	Time: 10.00 AM
		End date: 28.03.2022	Time: 05.00 PM
10	Bid online submission	Start date: 10.03.2022	Time: 10.00 AM
		End date: 28.03.2022	Time: 05.00 PM
11	Technical bid opening date	30.03.2022 (Wednesday) PM	Time: 03.00
12	Authority inviting bids	Director, Jharkhand Renewable Energy Development Agency(JREDA)	
13	Address	Jharkhand Renewable Energy Development Agency(JREDA) 3 rd Floor, SLDC Building, Kusai, Doranda, Ranchi- 834002. Ph. No: 2491161, Fax No: 0651-2491165 Web site: www.jreda.com E-mail: info@jreda.com	

Note: The Tender Fee & EMD in original must be submitted on **28.03.2022 and 29.03.2022** up to 5.00 P.M. If tender fee and EMD are not received before mentioned date and time, tender shall be considered invalid.

Place for receiving Tender fee & EMD:

Jharkhand Renewable Energy Development Agency (JREDA), 3rd Floor, SLDC Building, Kusai, Doranda, Ranchi- 834002.

Section-2: Notice Inviting Bid

NIB No: 20/JREDA/SURVEY/SOLAR PARK/21-22

Definitions

Unless the context otherwise requires, the following terms whenever used in this RFP and Agreement have the following meanings:

- a. “Applicable Law” means the laws and any other instruments having the force of law in India as they may be issued and in force from time to time.
- b. “Proposals” means proposal submitted by respondents in response on the RFP issued by Jharkhand Renewable Energy Development Agency (JREDA), on behalf of Government of Jharkhand for engagement of Consultants.
- c. “Competent Authority” means the Director JREDA.
- d. “Committee” means committee constituted for evaluation of Technical Proposals.
- e. “Consultant” means Firm/Agency/Individual Expert on the panel drawn up in pursuance of this RFP, which will provide the services to JREDA.
- f. “Agreement” means the Agreement signed by the parties for engagement along with the entire documentation specified in the RFP.
- g. “Day” means Calendar day.
- h. “Effective date” means the date on which the agreement comes into force and effect.
- i. “ITB” means Instructions to Bidders, specified in Section II of RFP.
- j. “IFP” means Invitation for Proposals, specified in Section I of RFP.
- k. “Government” means the Jharkhand State Government.
- l. “Member” means any of the entities that makeup the join venture / consortium /association, in relation to responding to this RFP.
- m. “Personnel” means professional and support staff provided by the Consultant detailed to perform services to execute an assignment and any part there of
- n. “SOW” means Scope of Work for the Respondents, specified in Section III of RFP.
- o. “Services” means the work to be performed by the Consultants pursuant to the engagement by JREDA and to the agreement to be signed by the parties in pursuance of any specific assignment awarded to them by JREDA

- p. “Resource” means manpower position.
- q. “LOA” means Letter of Award.

Sub.: Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar , Simdega , Palamu and Garhwa in Jharkhand.

Jharkhand Renewable Development Agency incorporated as a society under the Society Act, 1860 under the administrative control of the Department of Energy, Govt. of Jharkhand for promoting use of renewable energy sources and having its registered office at Kusai Colony, Doranda, Ranchi, Jharkhand-834002.

JREDA invites tender for Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar, Simdega, Palamu and Garhwa in Jharkhand.

Technical Eligibility Conditions:

The Bidder should be a registered legal Company/firm/Corporation/LLP in India. The bidder should fulfil the following criteria:

i. Technical

- a) Consortium, Associations and Sub Contractors are not allowed for this tender.
- b) The Bidder should be registered in India with appropriate statutory authorities as required under law. Copies of all such registration papers including PAN, GST and ITR etc. must be enclosed.

ii. Experience:

- a) **The bidder with experience of having successfully completed similar works in any SNA / Govt. Organization / PSU during last 7 years ending last day of receipt of online bids of this tender. The bidder should fulfil the following experience requirement:**

- Three similar completed works costing not less than the amount equal to 40% of the estimated Project cost.

or

- Two similar completed works costing not less than the amount equal to 50% of the estimated Project cost.

or

- One similar completed work costing not less than the amount equal to 80% of the estimated Project cost.

iii. Turnover:

- a) Average Annual Financial Turnover in the last 3 years, ending 31st March 2021 should not be less than **10 Lakhs**.

iv. Net worth Requirement:

- a) Bidder should have Positive Net Worth as on 31.03.2021 on the basis of audited annual accounts.

Section-3: Instructions to Bidders (ITB):

NIB No: 20/JREDA/SURVEY/SOLAR PARK/21-22

The guidelines to submit bid online can be downloaded from website <http://Jharkhandtenders.gov.in>

The interested bidders can download the bid from the website “<http://Jharkhandtenders.gov.in>”.

To participate in bidding process, bidders have to get ‘Digital Signature Certificate (DSC)’ as per Information Technology Act-2000 to participate in online bidding. This certificate will be required for digitally signing the bid. Bidders can get above mention digital signature certificate from any approved vendors (CCA). Bidders, who already possess valid Digital Certificates, need not to procure new Digital Certificate.

The bidders have to submit their bids online in electronic format with digital Signature. The bids without digital signature will not be accepted. No proposal will be accepted in physical form.

Bids will be opened online as per time schedule mentioned in Section 1

Bidders should get ready with the scanned copies of cost of documents & tender fee as specified in the tender document. Before submission of online bids, bidders must ensure that scanned copy of all the necessary documents have been attached with bid.

Bidder have to produce the original DD towards tender fee in approved form to the authority “Director, Jharkhand Renewable Energy Development Agency, Ranchi” on the date & time as mentioned in the NIT failing which bidder will be disqualified. The details of cost of documents specified in the tender documents should be the same as submitted online (scanned copies) otherwise tender will summarily be rejected.

Uploaded documents of valid successful bidders will be verified with the original before signing the agreement. The valid successful bidder has to provide the originals to the concerned authority. The department will not be responsible for delay in online submission due to any reason.

All the required information for bid must be filled and submitted online.

Other details can be seen in the bidding documents.

- a) Details of documents to be furnished for online bidding

- 1) Scanned copies of the following documents to be up-loaded in pdf format on the website <http://Jharkhandtenders.gov.in>.
1. DD towards Tender fee.
 2. EMD.
 3. GST certificate.
 4. PAN Card
 5. Firm's registration certificate.
 6. Audited Balance sheet of last three years
 7. Corresponding Income Tax Return (ITR).
2. Scanned Copies of the Annexures as per the enclosed formats should be uploaded after converting the same to .pdf format.
- I. Annexure-1 Covering Letter (On Bidder's Letterhead)
 - II. Annexure 2: Work Experience
 - III. Annexure-3: Format for Financial Requirement – Annual Turnover
 - IV. Annexure-4: Format for Financial Requirement - Net worth Certificate
 - V. Annexure-6: Contact Person for the NIB
- 3) Uploaded documents of valid successful bidders will be verified with the original before signing the agreement. The valid successful bidder has to provide the originals to the concerned authority on receipt of such letter, which will be sent though registered post.

b) Validity of proposals

Proposals shall remain valid for the period of 180 days from the date of publication of this RFP. A Proposal valid for shorter period may be rejected as non-responsive.

c) Conflict of interest

JREDA requires that the Surveyor should provide professional, objective, and impartial advice purely based on standard and accepted technical norms and a tall times hold the JREDA's interests paramount, strictly avoid conflicts with other assignments/jobs or their own corporate interests and act without any consideration for future work. The norms should be based on sound engineering principles guided

by all connected codes and guidelines issue from time to time by central and state authorities.

d) **Right to accept proposal**

JREDA reserves the right to accept or reject any Proposal, and to annul the Engagement process and reject all Proposals at any time prior to the signing of the agreement, without there by incurring any liability to the affected Respondent(s) or any obligation to inform the affected Respondent(s) of the grounds for such decision.

e) **Fraud and Corruption**

JREDA requires that the surveyor empanelled through this RFP must observe the highest standards of ethics during the performance and execution of such agreement. In pursuance of this policy,

a. Defines, for the purposes of this provision, the terms set forth as follows:

- i. **"Corrupt practice"** means the offering, giving, receiving or soliciting of anything of value to influence the action of JREDA or any personnel of Consultant(s) in contract executions
- ii. **"Fraudulent practice"** means amiss-presentation of facts, in order to influence a procurement process or the execution of a contract, to JREDA, and includes collusive practice among Respondents (prior to or after Proposal submission) designed to establish Proposal prices at artificially high or non-competitive levels and to deprive JREDA of the benefits of free and open competition;
- iii. **"Unfair trade practices"** means supply of services different from what is ordered on, or change in the Scope of Work which was given by the JREDA.
- iv. **"Coercive practices"** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the execution of contract.

b. JREDA shall reject a proposal for award, if it determines that the Respondent recommended for award, has been determined by JREDA to having been engaged in corrupt, fraudulent or unfair trade practices.

c. JREDA shall declare a Consultant ineligible, either indefinitely or for a stated period of time, for awarding the contract, if it at any time determines that the Consultant has engaged in corrupt, fraudulent and unfair trade practice in competing for, or in executing, the contract.

f) Liquidated Damages for Delay in Completion:

If the agency fails in the due performance of the contract to deliver the work within the time fixed under the contract or any extension thereof granted to him by JREDA and/or to fulfill his obligations in time under the contract, he shall be liable to pay to JREDA @0.5% per week maximum up to 10% of work value delayed beyond contract period.

g) Security Deposit

Successful bidder shall submit a security deposit @10% of the allotted work order value in the form of DD/Bank Guarantee valid for one year on or before 15 days from issuing work order. If Bank Guarantee will not be submitted within stipulated period from the date of issue of work order, then JREDA shall cancel the work order. The Security Deposit shall be refunded / released to the bidder after successful completion of work in line with work completion time line.

Submission of Reports:

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

- i. Three (3) copies of each final report should be submitted along with soft copies (editable as well as non-editable) to JREDA.
- ii. All the necessary drawing should be submitted in PDF format, editable Autocad format. Final copies of all drawings should be given in Colours.
- iii. Three (3) copies in hard of original drawings in colour format in A0 and A1 formats shall be submitted to JREDA.
- iv. Soft copies of original drawings in both PDF and AutoCAD format shall be submitted to JREDA in editable format at the end of each consignment in a compact disk (CD drive) inscribed with the site name and work done.
- v. Levels, coordinates and calculations taken& done for specified survey locations shall be provided in soft copy in both PDF, editable Excel and AutoCAD format. The files so shared shall as in such be suitable for JREDA to edit any changes that occurs in future.

Payment Terms and Conditions

- i. 100 % of the payment shall be made to the successful bidder as per the work order issued based on the L1 price arrived in line with Annexure-2: Price sheet after submission of the report in line with Section- Submission of Reports and scope of work.
- ii. Subject to any deduction, which JREDA may be authorized to make under this contract, the contractor shall be entitled to payment.

SCHEDULE "A"

Detailed Scope of Work for the Survey Work

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

Terms of Reference (Scope of Work per site) for Surveyor:-

A. Detailed Scope of Work under Topography Survey:

1. 'Topography Survey' of the plot area, site or park using DGPS/ total station/ Drone as per convenience of Surveyor in and within the state of Jharkhand. All existing features like trees, Water streams, Transmission tower, temple, Pipeline etc passing through the premises shall be located with their co-ordinates.
2. 'Contour Survey' of the plot area, site or park in and within the state of Jharkhand
3. Transfer of HFL level and setting of permanent bench mark (PBM) by fly level from nearest government structure (Culvert on National Highway/State Highway/Railways station) for the plot area, site or Park.
4. Demarcation and fixing of Stone at boundary of the plot area, site or Park.
5. Have strong coordination with CONCERN DISTRICT DILR Office and has to liason with DILR office for the said work at surveyors own cost.
6. Obtain village map /hard copy duly signed DILR office for concerned site & its village at surveyors own cost.
7. Surveying work shall be done by co-ordinating with DILR and entire survey report is to be submitted to JREDA with stamp of DILR.
8. No re-imburement shall be paid on account of payment of fees to any department or for co-ordination with any department.

B. Detailed Scope of Work under Geo-Technical Investigation:

Scope of Work: It shall include the 5 numbers for each site for drilling of borehole upto 5 Mtr. It shall include Conducting SPT at different interval or at change of strata as per IS : 2131-1981. It shall also Include Collecting Disturbed and Undisturbed soil samples as per IS : 2132-1977 and core samples in case of rock

- i. Including Testing of Soil Samples in Laboratory for-
 - a. Grain Size Analysis
 - b. Atterberg's Limits i.e. Liquid Limit & Plastic Limit
 - c. Specific Gravity
 - d. Field Density & Moisture Content
 - e. Direct Shear Test

- f. Triaxial Compression Test - Unconsolidated Undrained
- g. Unconfined Compression Test
- h. Consolidation Test
- i. Permeability Test
- ii. Including Testing of Rock Samples in Laboratory for –
 - a. Unconfined Compression Test
 - b. Water Absorption Test
 - c. Unit Weight
 - d. Porosity
- iii. Chemical Test of Underground water if water is encountered during drilling and if water is not encountered drilling then ground water from nearby area shall be taken for testing purpose.
 Technical Report shall include the recommendation for:
 - a. Open foundation at different depths and
 - b. Pile Foundation with different depth and diameter along with its Pull out, lateral and Compression capacities. It shall also include the Soil/Rock properties, Soil profile, Soil bearing capacities with the co-ordinates of bore-holes. Entire reports shall be as per latest IS standards.

Electrical Resistivity Test : It shall also include conducting 2 numbers of Electrical Resistivity Test for 5 mtr depth for each site.

C. Detailed scope of work under Hydrological Study:

Hydrology Expert shall have to conduct Scope of work include but not limited to below mentioned works/items:-

1. Field Resistivity survey as per requirement for existing groundwater Levels.
2. Utilizing the data of Topography survey for preparation of report
3. Soil infiltration test
4. Soil, Surface and Groundwater Sample Collection within the project site and its surrounding 2 km radius and its required analysis. Approx.- 2 samples of each site.
5. Study of available Lithology from existing Bore wells
6. Water accumulation zone study based on DEM generation
7. Land Use\Natural Drainage network \Canal network mapping of 10 km radius of study area based on satellite images and its field verification.
8. Purchase of secondary datasets published or through government departments and accordingly utilized the data for preparation of report.

9. Generation of required maps like Groundwater and Soil quality maps and its interpretation
10. Flood Assessment report
11. Conclusion and Recommendation.
12. Environment and Social Cost Impact Analysis (ESIA) for the solar project.

SCHEDULE "B"

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

Location of Solar Parks in Jharkhand State Park where survey needs to be done, on PRIORITY base (area is Subject to change)

1. Location 1) Name of Site - Badadobna, Deoghar , Area in Acres – 100 acres
2. Location 2) Name of Site - Jilinga Village, Simdega , Area in Acres – 100 acres
3. Location 3) Name of Site - Satbarwa, Palamu, Area in Acres – 100 acres
4. Location 4) Name of Site – Puregara , Ranka, Garhwa, Area in Acres – 100 acres

Details of the Site

S. No.	District	Site Location	Extent of Area (Acre)	Coordinates Spread		Elevation (m)
				Latitude	Longitude	
1.	Deoghar	Badadobna	100	24°33'56"N	86°36'42"E	270
2.	Simdega	Jilinga	100	22°29'34.1"N	84°24'18.7"E	347
3.	Palamu	Satbarwa	100	23°56'54"N	84°12'23"E	325
4.	Garhwa	Puregara	100	23°56'56"N	83°50'49"E	310

Annexure-1 Covering Letter (On Bidder's Letterhead)

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

To,

Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, SLDC Building, Kusai Colony,
Doranda, Ranchi-2
Jharkhand

Sir,

Sub: Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar , Simdega , Palamu and Garhwa in Jharkhand.

Having examined the RFP, we, the undersigned, offer to propose for the Engagement of Surveyor with JREDA, in full conformity with the said RFP.

We have read the provisions of RFP and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our proposal shall not be given effect to.

We agree to abide by this Proposal, consisting of this letter, the Pre-qualification and Technical Proposal, the duly notarized written power of attorney, and all attachments including the presentation to be made to the evaluation Committee, if required, it shall remain binding upon us and at any time before the expiration of the period of engagement.

Until the formal final Contract is prepared and executed between us, this Proposal, together with your written acceptance of the Proposal and your notification of award, shall constitute a binding contract between us.

We hereby declare that all the information and statements made in this proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

We are hereby submitting our offer in full compliance with the terms and condition of the above NIB No. We have submitted the requisite amount of Tender Fee in the form of Demand Draft & "Earnest Money" in the form of Bank Guarantee, valid for twelve months.

We understand you are not bound to accept any proposal you receive.

Signature of the authorized person
Full Name, Designation & address
Seal

Annexure 2: Work Experience

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

Format for Experience of the Firm

Project		
Client:		Duration (Start; End Date):
Consultancy Contract Value:	Person months input:	Total person months under the Consultancy Contract:
Firm which undertook work:		
Name of associate Consultants, if any:		
Narrative description of project:		
Experience relevant to the present assignment:		

Note: Please attach documentary proof.

Annexure-3: Format for Financial Requirement – Annual Turnover

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

[On the letterhead of Auditor/Bidding Company]

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi - 834002

Sir,

Sub: Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar , Simdega , Palamu and Garhwa in Jharkhand.

We certify that the Bidding Company had an average Annual Turnover of Rs. -----
----- based on audited annual accounts of the last three years ending
31.03.2021.

Sl. No.	Financial Year	Turnover (in Rupees)
1.	2018-19	
2.	2019-20	
3.	2020-21	
	Average Annual Turnover	

UDIN No.:

Authorized Signatory
(Power of Attorney holder)

Statutory Auditor
(Stamp & Signature)

Annexure-4: Format For Financial Requirement - Net Worth Certificate

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

[On the letterhead of Auditor/Bidding Company]

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi - 834002

Dear Sir,

Sub: Conducting Topography Survey, Geo-Technical Investigation and Hydrological Study for upcoming 80 MW Solar Park at four different locations namely at Deoghar , Simdega , Palamu and Garhwa in Jharkhand.

This is to certify that Net worth of _____ {insert the name of Bidding Company}, as on 31st March 2021 is Rs _____.

Particulars	Amount (In Rs.)
Equity Share Capital	
Add: Reserves	
Subtract: Revaluation Reserve	
Subtract: Intangible Assets	
Subtract: Miscellaneous Expenditure to the extent not written off and carried forward losses	
Net Worth as on 31 st March 2021	

UDIN No.:

Authorised Signatory
(Power of Attorney holder)

Statutory Auditor
(Stamp & Signature)

Annexure-5: Price sheet

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

Site wise price schedule for conducting Survey as per Scope of Work

S. No.	District	Site Location	Extent of Area (Acre)	Quoted Rate including all taxes and charges (in Rs.)
1.	Deoghar	Badadobna	100	
2.	Simdega	Jilinga	100	
3.	Palamu	Satbarwa	100	
4.	Garhwa	Puregara	100	
Total Amount including all taxes and charges (in Rs.)				

Note:

- 1) The amount indicated in the Financial Proposal shall be inclusive of Goods and Services Tax (GST, associated cases and all other charges).

Annexure-5(a): Price sheet (Breakup)

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

(PDF. format)

Site wise price schedule for conducting Survey as per Scope of Work

Name of the Site:.....

Topography Survey:

S r · N o.	Item No.	DESCRIPTION	Unit of Measurement	Quoted Rate (in Rs.)
1	Item No.-1	Demarcation of the boundary points as per given plan, Supply, Fixing and setting of Pillar at Boundary of the Parks with stone/Pre-cast RCC pillar of dimensions 150mmx150mmx600mm (including material, machinery and labor) at site	Per Pillar	
2	Item No.-2	Contour survey by DGPS/ TS /Drone and plotting the contour at the interval of 0.5 mtr. Contour Survey shall be done in the grid of 10 mtr x 10 mtr	Per Hectare	
3	Item No.-3	Topography survey for the entire area for locating the existing features.	Per Heactares	
4	Item No.-4	Transferring HFL of the area from nearest govtt structure, Fixing and setting of permanent bench mark(PBM) by constructing proper foundation on site with	SINGLE WORK	

		M20 grade of concrete of dimensions 350mmx400mmx600mm along with placement & punching of MS plate 150mmx100mmx3mm for Identification.		
B		TOTAL		

Geo-Technical Investigation

Sr. No	Description	Unit	Quantity	Quoted Rate (in Rs.)
1	<p>Geotechnical Investigation :</p> <p>Drilling borehole upto 5m depth</p> <p>Including Conducting SPT at different interval or at change of strata as per IS : 2131-1981</p> <p>Including Collecting Disturbed and Undisturbed soil samples as per IS : 2132-1977 and core samples in case of rock</p> <p>Including Testing Soil Samples in Laboratory for-</p> <ol style="list-style-type: none"> 1) Grain Size Analysis 2) Atterberg's Limits i.e. Liquid Limit & Plastic Limit 3) Specific Gravity 4) Field Density & Moisture Content 5) Direct Shear Test 6) Triaxial Compression Test - Unconsolidated Undrained 7) Unconfined Compression Test 8) Consolidation Test 9) Permeability Test <p>Including Testing of Rock Samples in Laboratory for -</p> <ol style="list-style-type: none"> 1) Unconfined Compression Test 2) Water Absorption Test 3) Unit Weight 4) Porosity <p>Chemical Test of water shall also be conducted</p>	No.s	2 number each site	
2)	Conducting Electrical Resistivity Test upto 5 mtr depth	No.s	2 numbers each site	
3)	Chemical Test of water shall also be conducted	No.s	1 number for each	

			site	
--	--	--	------	--

Hydrological Study and ESIA Report:

Sr No.	Description	Total Amount Value (in Rs.)
1.	Carry Out Hydrological Study and Preparation of Hydrological Report including ESIA Report	

Rupees. in words _____

Note:

- 1) JREDA reserves the right to accept or reject any or all the offers without assigning any reason thereof.
- 2) The prices quoted of each item should be firm and for the terms of reference as shown in **Schedule "A"** including cost of man-hours spent in surveyors office and JREDA's office/site during data collection & discussion etc., all expenses for personnel services, visits, transport charges, boarding and Lodging charges, food charges, cost of collecting required data, payment of fees to any department etc. and all necessary services, materials, stationery, computer services, typing, printing Xeroxing etc. to fulfill the requirement of the scope. No escalation in price will be granted on any account. (Refer Clause 3.0)
- 3) The prices quoted must be inclusive of all taxes, duties etc. Service Charges, Taxes and duties, GST as applicable.
- 4) JREDA may have authority to split up the work or allot the work order to multiple Surveyors / Survey agencies on the same rate.
- 5) The rate quoted would be inclusive of lodging, boarding, travelling and other miscellaneous cost.

Annexure-6: Contact Person for the NIB

NIB No. 20/JREDA/SURVEY/SOLAR PARK/21-22

[On the letterhead of Bidding Company]

1	Contact Person name for the NIB	
2	Designation	
3	Contact No. (Phone & Mobile)	
4	Fax No.	
5	e-mail ID	
6	Corresponding address with pin code	
7	Remarks	

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal: