BIDDING DOCUMENT

FOR

Hotline stringing of 2nd circuit of 132 KV Kukurmara (Mirza) – Azara line

ASSAM ELECTRICITY GRID CORPORATION LIMITED



BID IDENTIFICATION NO: AEGCL/MD/Tech-910/2nd Circuit/KMR-AZR/2021/BID

SECTION 1

INSTRUCTION TO BIDDERS

Corporate Office, Assam Electricity Grid Corporation Limited, Bijulee Bhawan, Paltan Bazar, Guwahati-781001 PHONE: 0361-2739520 FAX NO.0361-2739513

Web: www.aegcl.co.in Email: managing.director@aegcl.co.in

1.1.0 INTRODUCTION:

The Chief General Manager (PP&D) on behalf of Assam Electricity Grid Corporation Ltd(AEGCL), hereinafter referred to as AEGCL or Purchaser invites single stage two envelope e-bids for the following work from eligible manufacturers/firms/companies/ contractors. Joint venture is not allowed for this bid. a) Name of work: Hotline stringing of 2nd circuit of 132 KV Kukurmara (Mirza) – Azara line.

1.2.0 INTENT OF THE TENDER ENQUIRY:

The intent of the Tender Enquiry is to invite proposals from the prospective and relevantly experienced and financially sound contractor(s) /firms to carry out the works as specified in this bidding document.

1.3.0 SCOPE OF WORK:

The major scopes of work are as follows:-

- Supply of insulators, conductor accessories, hangers, clamps & connectors and hardware fittings as per BoQ and bid specification including transportation from factory, delivery at site and unloading at site.
- b) <u>Conductor required shall be supplied by AEGCL</u>. However, the contractor shall have to transport the conductors from Karimganj substation to site of work. Loading at Karimganj, transportation to site of work and unloading shall be in the scope of contractor.
- c) Hotline stringing of 2nd circuit of Kukurmara (Mirza) Azara 132 KV line including supply of all labour and including all material handling. At present one circuit is running on D/C tower with double circuit at railway and highway crossing.
- d) Any permits required for supply of materials shall be arranged by the contractor. However, AEGCL shall assist the contractor in arranging permits if any to the extent possible.
- e) Transit Insurance, storage at site and site insurance of all material at site shall be in the scope of the contractor.

1.4.0 TIME SCHEDULE:

The successful bidder shall have to complete the works within 6 (Six) months from the date of contract commencement.

1.5.0 ESTIMATE:

Rs. 62,65,491.00 (Rupees Sixty Two Lakh Sixty Five Thousand Four Hundred Ninty One) Only

1.6.0 ELIGIBILITY CRITERIA:

1.6.1. EXPERIENCE

i.

- To be qualified for the bid the bidder must compulsorily meet the following minimum criteria.
 - Must have prior experience in successfully executing any one of the following in last five years:
 - (a) Turnkey execution of 132 KV or above KV line with minimum route length of 5 KM.
 - (b) Hotline stringing of 132 KV or above KV line with minimum route length of 5 KM.
 - (c) Erection of 132 KV Tower superstructure and stringing of 132 KV line for a minimum route length of 5 KM
 - ii. Bidder must have valid electrical license for working on 132 KV Transmission line.

1.6.2. FINANCIALS:

- i. As a minimum, a Bidder's net worth calculated as the difference between total assets and total liabilities should be positive. As supporting document, bidder should submit audited balance sheets or other financial statements acceptable to the Purchaser, for last 3 (three) financial years to demonstrate the current soundness of the Bidders financial position and its prospective long-term profitability. Apart from audited balance sheet, bidder shall submit duly filled and signed Form 'FIN-1' given in Section 2. Using the 'Form LIT 1' (Section 2, Bidding Form), bidder shall list all Pending Litigation. All pending litigation shall be treated as resolved against the Bidder and so shall in total not represent more than 50% percent of the Bidder's net worth.
- ii. Bidder must have minimum Average Annual Turnover (AAT) of Rs. 63,00,000.00 (Rupees Sixty Three Lakh). AAT shall be calculated by averaging total certified payments received for contracts in progress or completed, for the last 3 (three) years. The bidder shall furnish, along with its bid, audited balance sheets and duly filled up Form 'FIN-2' in support of this Clause.
- iii. Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet:
 - (a) the following cash-flow requirement, Rs. 21,00,000.00, and
 - (b) the overall cash flow requirements for this contract and its current works commitment.

Bidder must submit duly filled and signed Form FIN-3 & FIN-4 of section 2 in support of this clause.

1.6.3. TYPE TEST REPORT:

The offered products must be type tested at CPRI or NABL accredited test laboratory for critical performance at the time of bid submission. Bidder must submit full type test reports for the offered product along with the techmno-commercial bid. The bidder shall submit type test reports from CPRI or NABL accredited laboratory along with the techno-commercial bid.

1.7.0 SITE VISIT:

The bidders are advised to visit and examine the sites of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid. The costs of visiting the Site shall be at the bidder's own expense.

1.8.0 QUANTUM OF WORK:

The quantum of work is stated in the PRICE SCHEDULE at the end of section 2 – bidding forms.

1.9.0 QUERY ON THE BIDDING DOCUMENT:

Prospective bidder may submit queries, if felt necessary, requesting clarification of any bid clause. Such queries must be submitted in the etendering portal latest by the **Tender clarification end date and time** mentioned in the Bid Data Sheet. Purchaser shall clarify to the extent felt necessary or issue corrigendum for any amendment required in the bidding document. Such corrigendum/clarification shall be made available in the etendering portal and official website of AEGCL, <u>www.aegcl.co.in</u>. Any query submitted outside the etender portal viz. email, or in physical letters, shall not be entertained.

1.10.0 CLARIFICATION OF BIDS

To assist in the examination, evaluation, and comparison of the Technical and Price Bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its bid. Any clarification submitted by a Bidder that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change in the substance of the Technical Bid or prices in the Price Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the evaluation of the bids. If a Bidder does not provide clarifications of its bid by the date and time set in the Purchaser's request for clarification, its bid may be rejected.

1.11.0 DEADLINE FOR SUBMISSION OF BIDS

Bids shall be received ONLINE only on or before the date and time indicated in the **Bid Data Sheet** The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

1.12.0 SUBMISSION OF BID:

The bidder shall submit the techno commercial & price bid through e-tendering portal <u>https://assamtenders.gov.in</u>. All documents as required by this bidding document shall be scanned and uploaded in the portal. Price schedule should be submitted in the format provided in the online portal. Bidder must go through the document checklist provided in this bidding document and submit all required document. Bidders are also requested to submit the informations in the format provided in this bidding document where applicable.

In addition to the online bid submission, (i) Original copy of EMD/Online EMD payment receipt, (ii) Duly filled and signed tender submission form and (iii) Authorization letter of bid signatory must be submitted in a sealed envelope superscribed with the name of bidder, full address, IFB reference, name of work etc. at the office of the Managing Director, Assam Electricity Grid Corporation Ltd, Bijulee Bhawan, Paltan Bazar Guwahati-781001 one hour prior to bid submission end date and time. In case these documents are not received, the bid shall be summarily rejected.

1.13.0 BID VALIDITY

The validity of bid shall be for **180(One Hundred Eighty) days** from the date of bid submission end date.

1.14.0 OPENING OF TECHNO-COMMERCIAL BIDS

The Purchaser shall conduct the opening of Technical Bids through online process at the address, date and time specified in the BDS. Bidders at their discretion may attend the techno-commercial bid opening.

Price bid of those bidders shall only be opened whose techno-commercial bids are found to be responsive to the requirement of the bidding document.

1.15.0 EARNEST MONEY DEPOSIT (EMD):

EMD amount mentioned in BDS must be submitted online through e-tendering portal. Copy of the EMD payment receipt should be submitted along with Techno-Commercial bid. Alternatively, if allowed bidders may submit EMD BG from schedule banks in favour of Managing Director, AEGCL The earnest money will be released to the unsuccessful bidders on finalization of the tenders. The EMD to the successful bidder will be released on submission of Security Deposit after execution of the contract agreement.

1.16.0 PRICE BASIS:

Cost quoted by the bidder shall be inclusive of all scope of work as specified in this biding document including any related services that is implicit to carry out the work successfully. Price will be firm and no price variation will be allowed within the completion period given in the work order.

1.17.0 DEVIATIONS, RESERVATIONS, AND OMISSIONS:

During the evaluation of bids, the following definitions apply:

- a) "Deviation" is a departure from the requirements specified in the Bidding Document;
- b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
- c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

1.18.0 PRELIMINARY EXAMINATION OF TECHNICAL BIDS:

The Purchaser shall examine the Techno-commercial Bid to confirm that all documents and technical documentation requested in this bidding document have been provided, and to determine the completeness of each document submitted. If any of these documents or information is missing, **the Bid may be rejected.** The Purchaser shall confirm that the following documents and information have been provided in the Technical Bid. If any of these documents or information is missing, the offer **shall be rejected**.

- (a) Original copy of EMD BG or Online EMD payment receipt,
- (b) Duly filled and signed tender submission form and

Authorization letter of bid signatory

Bidder should submit hard copies of the documents mentioned above in (a), (b) and (c) in a physical envelope prior to deadline for technical bid submission. Techno-commercial bids shall be summarily rejected if these three documents are not submitted in hard copy deadline for technical bid submission.

1.19.0 RESPONSIVENESS OF TECHNO-COMMERCIAL BID:

The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself. A substantially responsive Techno-commercial Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

a) If accepted, would:

- (i). Affect in any substantial way the scope, quality, or performance of the plant and services specified in the Contract; or
- (ii). Limit in any substantial way, inconsistent with the Bidding Document, the Purchaser's rights or the Bidder's obligations under the proposed Contract; or
- b) If rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.

The Purchaser shall examine the Techno-commercial Proposal, to confirm that the requirement of the bidding document have been met without any material deviation or reservation.

If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

1.20.0 EVALUATION OF PRICE BIDS:

The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be used.

To evaluate a Price Bid, the Purchaser shall consider the following:

- a) The bid price excluding taxes as quoted in the Price Schedules;
- b) Price adjustment for correction of arithmetical errors.

1.21.0 AWARD CRITERIA:

Purchaser shall in general award the contract to the lowest substantially responsive bidder. However, the purchaser reserves the right to not award contract to the lowest substantially responsive bidder without thereby incurring any liability to Bidders.

1.22.0 PURCHASER'S RIGHT TO ACCEPT ANY BID, AND TO REJECT ANY OR ALL BIDS:

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

1.23.0 NOTIFICATION OF AWARD:

Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its bid has been partially or fully accepted quoting acceptance of the bid. The notification letter (hereinafter called the "Notification of Award") shall specify the sum that the Purchaser will pay the Contractor (hereinafter called "Contract Price") in consideration of the execution and completion of the services. Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

1.24.0 PERFORMANCE SECURITY:

Within 15 (five) days of receipt of the Notification of Award from AEGCL, the successful bidder shall furnish to AEGCL a performance security in an amount of 10 (Ten) percent of the Contract Price in accordance with the Conditions of Contract. The form of performance security provided in Section 3 of the bidding documents may be used or some other form acceptable to AEGCL. The performance guarantee BG shall be valid through 60 days beyond the guarantee period.

1.25.0 SIGNING OF CONTRACT AGREEMENT:

Within **15 (Fifteen) days** of receipt of the Notification of Award, the successful Bidder shall be required to sign the Contract Agreement with AEGCL using for that purpose, the contract form provided with this bidding document failing which AEGCL at its discretion may cancel the award.

Annexure to SECTION 1 BID DATA SHEET

Name of Work	Hotline stringing of 2 nd circuit of 132 KV Kukurmara (Mirza) – Azara line.					
Location of Work	400 KV Kukurmara (Mirza) substation is located approximately 10 KM southwest of Guwahati Airport. 132 KV Azara substation is situated near Guwahati airport.					
NIT No.	AEGCL/MD/Tech-910/2 nd Circuit/KMR-AZR/2021/ 06 dtd. 03.06.2021					
Bid Identification No.	AEGCL/MD/Tech-910/2 nd Circuit/KMR-AZR/2021/BID					
Estimate(In Rupees) Indian Rs. 62,65,491.00 (Rupees Sixty Two Lakh Sixty Five Thousand Four Hundred Nin One) Only.						
Earnest Money Deposit(EMD	Rs. 1,25,000.00 (Rupees One Lakh Twety Five Thousand) Only					
Purchase'sAddress for correspondance	The Chief General Manager(PP&D), AEGCL 1 st Floor, Bijulee Bhawan, Paltanbazar Guwahati(Assam) 781001 Telephone: +91 361 2739520 Facsimile number: +91 361 2739513 Electronic mail address: <u>cgm.ppd@aegcl.co.in</u>					
Pre-bid date	Shall be notified, if any, in due course.					
Bid submission mode	E-tenders shall be accepted through online portal https://assamtenders.gov.in only)					
Address for bid opening	The Chief General Manager(PP&D), AEGCL Floor/Room number: First Floor Street Address: Bijulee Bhawan, Paltanbazar City: Guwahati (Assam) PIN Code: 781001 Country: India					
Key dates	Tender publishing date: 10:00 Hrs. 04.06.2021 Tender submission start date: 10:00 Hrs. 21.06.2021 Tender clarification end date: 17:00 Hrs. 15.06.2021 Tender submission end date and time: 12:00 Hrs. 29.06.2021 Techno-cmmercial bid opening date: 14:00 Hrs. 30.06.2021					

SECTION -2 BIDDING FORMS

(This Section contains the forms which are to be completed by the Bidder and submitted as part of his Bid)

<u>Form – 1</u> Document checklist

SL. No.	Document to be submitted	Submitted(Yes/No)	Name of uploaded pdf
1.	Letter of technical bid(Form-2)		
2.	Notarised Power of attorney for the		
	person signing the tender		
3.	Bank Gurantee for EMD (Form-3)		
4.	Bidders company/firm registration		
	certificate/certificate of incorporation		
5.	GST registration		
6.	Electrical license for working on 132		
	KV(or above) line		
7.	Filled up Form ELI-1		
8.	Filled up Form LIT		
9.	Filled up Form FIN-1		
10.	Filled up Form FIN-2		
11.	Filled up Form FIN-3		
12.	Filled up Form FIN-4		
13.	Audited Balance sheet for last three		
	years		
14.	Bank solvency certificate/other		
	supporting document		
15.	Filled up Form EXP-1		
16.	Order/Contract copies establishing		
	past experience		
17.	Completion certificate of work		
	executed		
18.	Type test reports/Undertaking for		
	insulator and hardware fittings		
19.	Completion schedule bar chart		
20.	Additional documents if any		

Note: Bidders are requested to submit all required documents in e-tender portal and physical copies of i) Letter of technical bid, ii) EMD and iii) Power of Attorney(notarized) for bid signatory to Tender inviting authority.

(In bidders letterhead)

Form-2 Letter of technical bid

Date:

То

The Chief General Manager (PP&D) AEGCL, 1st Floor, Bijulee Bhawan, Paltan Bazar, Guwahati-01

Bid Identification No: AEGCL/MD/Tech-910/2nd Circuit/KMR-AZR/2021/BID

Sir,

I/We the undersigned, declare that, we, [insert name of the bidder] having registered office at [insert address of the registerd office] having experience in construction/stringing of EHV transmission line, have read the bid document and do not have any reservation to any of the clause therein. We offer to execute the work of:

Hotline stringing of 2nd circuit of 132 KV Kukurmara (Mirza) – Azara line

in conformity with the bid specification. Our Bid shall be valid for a period of **180(One Hundred Eighty)** days from the date fixed for the bid submission deadline and it shall remain binding upon us at any time before the expiration of that period.

Common Seal and Signature of the authorised person: Name: Designation:

<u>Form – 3</u>

Format for Bank Guarantee (Earnest money deposit)

Bank Guarantee (To be stamped in accordance with Stamp Act) (The non-Judicial Stamp Paper should be in the name of issuing Bank)

> Bank's Name: Address of Issuing Branch or Office: Email id and phone no for correspondence:

Beneficiary: The Managing Director, AEGCL Name and Address of Purchaser

Bid Security No .:

We have been informed that name of the Bidder..... (Hereinafter called "the Bidder") intends to submit to you its bid against *Bid ref*..... for Supply installation, testing & commissioning of solar street light system.

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; and (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy your notification to the Bidder of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

BG expiry date: BG clam date:

Bank's seal and authorized signature(s)

<u>NOTE</u>

- **1.** All italicized text is for use in preparing this form and shall be deleted from the final document. An amount is to be inserted by the Guarantor, representing the EMD amount as per bid.
- 2. This guarantee shall be valid upto 30 days beyond the bid validity.
- 3. For BG amount equal to or more than 50,000.00, BG should be signed by two bank officers to be valid.
- **4.** Address of the banker with email and phone number for correspondence with banker should be clearly mentioned. Any correspondence related to the BG with the banker shall be made to the address mentioned in the BG.

Form-ELI-1 Bidder's information Sheet

SI.	Particulars	Bidders response
No.	Failiculais	bidders response
1	Bidders name and registered	
	address	
2	Bidders authorised representative,	
	designation and contacts	
3	GST registration no.	
4	Bid validity	180(One Hundred Eighty) Days
5	MSME/SSI registration	Yes/No
	Udyog Adhaar/NSIC registration	
	available?	
6	EMD exemption claimed	Yes/No

Form – LIT Pending Litigation

Year	Matter in Dispute	Value of Pending Claim in Rupees	Value of Pending Claim as a Percentage of Net Worth

Form FIN – 1 Financial Situation

Information from Balance Sheet

Financial Data for Previous 3 Years [Rupees]	Year 1 [Mention Financial Year]	Year 2 [Mention Financial Year]	Year 3 [Mention Financial Year]
Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Information from Income Statement

Total Revenues		
Profits Before Taxes		
Profits After Taxes		

Note: To be supported by audited financial documents

Form FIN – 2 Average Annual Turnover

	Annual Turnover Data for the Last 3 Years				
Year	Amount				
i cai	(Rupees)				
	Average Annual Turnover				

The information supplied should be the Annual Turnover of the Bidder in terms of the amounts billed to clients for each year for contracts in progress or completed.

(Signature and common seal)
Name:
Designation:
Date:

Form FIN – 3 Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total cash flow demands of the subject contract or contracts with necessary supporting documents.

	Financial Resources					
No.	Source of financing	Amount (Rupees)				
1						
2						
3						

Form FIN- 4 Current Contract Commitments

Bidders should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

No.	Contract No., Customer and name of work	Contract value(Rs.)	Estimated Completion Date	Value of Outstanding Work (Rs.)
1				
2				
3				
4				
5				

Form – EXP-1 EXPERIENCE

Each Bidder must fill in this form

SI. No.	Customer name	Contract No. and date	Work order value	Brief description of work	Completion date

Note: Order/contract copies are to be submitted as supporting document. Performance/completion certificate to be submitted wherever applicable.

Price schedule – 1 (Supply)

(Suppry)							
				1	•	are in Indian	•
				Unit price	Unit F&I	Total	Remarks
SI.	Item description	Unit	Qty	for supply	charges	price	(give HSN
No.		Onit	Qty	(without	excluding	excluding	code and
				taxes)	taxes	taxes	GST rate)
1	2	3	4	5	6	7	8
1	Conductor						
	Transportation charges for 37/3.15 mm All						
1.1	Aluminium Alloy Conductor from Karimganj	Lot	1	Quote			
1.1	to Azara site, (Conductor shall be supplied	LUI	I	zero			
	by AEGCL, Conductor Qty – 21 KM)						
2	POWER CONDUCTOR ACCESSORIES						
2.1	Stock bridge type Vibration Damper	Nos	192				
2.2	Preformed Armoured Rods	Nos	192				
2.3	Mid Span Compression Ridge	Nos	30				
2.4	Repaire Sleeve	Nos	10				
3	INSULATORS						
3.1	Disc insulator, 70KN	Nos	27				
3.2	Disc insulator, 90KN	Nos	1512				
4	HARDWARE FITTINGS						
	Single tension hardware fittings including						
4.1	tension clamp for AAAC 'Panther'	Set	168				
	equivalent						
	Single suspension hardware fittings						
4.2	including suspension clamp for AAAC	Set	3				
	'Panther' equivalent						
	Double tension hardware fittings including						
4.3	tension clamp for AAAC 'Panther'	Set	0				
	equivalent						
4.4	Supply of Bird Guard	Nos	180				
4.5	Hanger	Nos.	90				

Price schedule - 2

All prices are in Indian Rupees

SI. No.	Item description	Unit	Qty	Unit price (without taxes)	Remarks (give HSN code and GST rate)
1	2	3	4	5	6
1	Stringing of power conductors (3 conductors) including transportation from Stores and distribution of conductors and accessories to sites and laying, stringing, tensioning, clamping, jointing, jumpering	Route KM	6.5		

Γ	and hoisting of insulators complete	
	including cost of all fittings and accessories	
	not specifically mentioned elsewhere per	
	route Km of line	

Note:

The price schedule presented here is for reference only. Bidders must submit the price using the price schedule available in e-tendring portal. This is not to be submitted in the techno-commercial envelope.
 If any item is not specifically mentioned in the price schedule but required to complete the job successfully, same shall be deemed to be included in any of the items of the price schedule.

Section - 3 Purchaser's Requirements

3.1.0 SCOPE

The brief description of scope covered under this Bidding Document is furnished below:

- (a) Supply of insulators, Power Conductor accessories, hangers, clamps & connectors and hardware fittings as per BoQ and bid specification including transportation from factory, delivery at site and unloading at site.
- (b) <u>Conductor required shall be supplied by AEGCL</u>. However, the contractor shall have to transport the conductors from Karimganj substation to site of work. Loading at Karimganj, transportation to site of work and unloading shall be in the scope of contractor.
- (c) Hotline stringing of 2nd circuit of Kukurmara (Mirza) Azara 132 KV line including supply of all labour and including all material handling. At present one circuit is running on D/C tower with double circuit at railway and highway crossing(s).
- (d) Any permits required for supply of materials shall be arranged by the contractor. However, AEGCL shall assist the contractor in arranging permits, if any, to the extent possible.
- (e) Transit Insurance, storage at site and site insurance of all material at site shall be in the scope of the contractor.

3.2.0 SERVICE CONDITIONS

Bidder should note the following climatic and other conditions prevailing in the location of work:

a)	Peak ambient day temperature in still air			: 45°C
b)	Minimum night temperatures			: 0°C
c)	Ground temperatures			: 40°C
c)	Reference ambient day temperature			: 45°C
d)	Relative Humidity	a)	Maximum	: 100 %
		b)	Minimum	: 10 %
e)	Altitude			: Below1000 M above MSL
f)	Maximum wind pres	ssure		: As per IS: 802 latest code.
g)	Seismic Intensity			: ZONE-V as per IS 1893.

3.3.0 Technical Standards

The tension string assemblies, insulator discs and hardware offered, material and processes adopted in the manufacture of insulator discs and hardware shall conform to the provision of the following standards or equivalent other international standards:

- (1) IS: 731 Specification of porcelain insulators for overhead power lines.
- (2) IS: 2486 Specification of insulator fittings for overhead power lines.
- (3) IS: 2026 Specification for recommended practice for hot dip galvanizing of steel
- (4) IS: 2633 Specification for method for testing uniformity of coating on zinc coated articles.
- (5) IS: 2107 Specification for white hearth malleable iron castings.
- (6) IS: 2108 Specification for black hearth malleable iron castings.

3.4.0 TECHNICAL SPECIFICATION

3.4.1. TOWER SUPERSTRUCTURE

Supply of tower superstructure is not in the scope of this work.

3.4.2. CONDUCTOR

Supply of Conductor is not in the scope of the contractor.

3.4.3. HANGER

3.4.3.1. Hangermaterial shall be of forged steel conforming to IS:2004:1993 class-4. Galvanising shall be hot dip conforming to IS:2629. Ultimate tensile strength shall be 120 KN or above.

3.4.4. INSULATOR DISCS AND STRINGS

3.4.4.1. TYPE OF INSULATORS:

All suspension and tension strings shall consist of standard centre ball and socket type porcelain insulators with all the exposed porcelain parts fully glazed, unless otherwise specified.

3.4.4.2. QUALITY AND STRENGTH OF THE INSULATORS:

The insulators and their hardware used in the lines shall comply with requirement of relevant IS or other equivalent international standards.

3.4.4.3. MATERIALS USED:

The porcelain used in the manufacture of the insulators shall be of the best quality and shall be manufactured by the wet process. It shall be homogeneous, free from lamination; flaws etc. and well finished making it impervious to moisture. The glaze shall be brown color and shall cover all the porcelain parts of the insulator except these areas necessarily left unglazed for the purpose of assembly. The cement used in the construction of the insulators shall not cause fracture by expansion or loosening and shall not give rise to any chemical reaction with the metal fittings.

3.4.5. HARDWARE FITTINGS FOR INSULATOR

3.4.5.1. HARDWARE:

Each insulator string assembly shall generally include the following hardware:

Anchor shackle for attachment of suspension string assembly to the tower hanger and tension string assembly to the tower strain plate. Suitable top and bottom yoke assemblies with the arrangement of fixing a set of arcing horns.

- Set of arcing horns
- Suspension or tension clamp
- Bolts, nuts, washers, split pins etc.
- Other fitting s necessary to make the strings complete such as ball clevis, socket clevis, chain links etc.

The bidder shall be responsible and satisfy himself that all the hardware included in strings are entirely suitable for the conductor offered.

3.4.5.2. STRAIN CLAMP:

The bolted strain clamps shall also be made of malleable iron or aluminum alloy; hot dip galvanized, lined with sheet aluminum liners and shall be suitable to accommodate the conductor with necessary binding tapes etc. The lips shall be rounded off carefully and conductor seating and the ball mouth shall be smooth to avoid corona and radio interference noises. Suitable attachment for receiving one side of arcing horns and for connecting to the insulator strings shall be provided.

The strain clamps shall be such that the conductor should not slip at a load of 90% of the breaking load of the conductor. The ultimate strength of the clamp for horizontal load shall not be less than the ultimate strength of the conductor.

3.4.5.3. OTHER INSULATOR STRING HARDWARE:

The strength of other string hardware namely anchor shackle, yoke plates, socket-clevis etc. shall be coordinated with insulator disc strength.

3.4.5.4. INTERCHANGEABILITY:

The hardware together with ball and socket fittings shall be of standard design, so that this hardware are interchangeable with each other and suitable for use with disc insulators of any make con1orming to relevant Indian/International Standard

3.4.5.5. BALL AND SOCKET DESIGNATION:

The dimensions of the ball and socket shall be of 20 mm designation for 70 KN , 90 KN and 120 KN discs, in accordance with the standard dimensions stated in IS: 2486-(Part-II) /IEC: 120. The dimensions shall be checked by the appropriate gauge after galvanizing only.

3.4.5.6. SECURITY CLIPS AND SPLIT PINS:

Security clips for use with ball and socket coupling shall be R-shaped, hump type which provides positive locking 9f the coupling as per IS: 2486-(Part-III)/IEC: 372. The legs of the security clips shall be spread after assembly in the works to prevent complete withdrawal from the socket. The locking device should be resilient, corrosion resistant and of suitable mechanical strength. There shall be no risk of the locking device being displaced accidentally or being rotated when in position. Under no circumstances shall the locking devices allow separation of fittings.

The hole for the security clip shall be countersunk and the clip should be of such design that the eye of clip may be engaged by a hot line clip puller to provide for disengagement under energized conditions. The force required to pull the security clip into its unlocked position shall neither be than 50 N (5 kg) nor more than 500 N (50 kg).

Split pins shall be used with bolts & nuts.

3.4.5.7. ARCING HORN FOR EHV STRINGS:

The arcing horn shall be provided on tower side of the hardware fittings. The same shall be either ball ended rod type or tubular type.

The spark gap shall be so adjusted to ensure effective operation under actual field conditions.

3.4.5.8. DEAD END ASSEMBLY:

The dead end assembly shall be suitable for Conductor as detailed in the document.

The dead end assembly shall be compression type with provision for comprising the jumper terminal at one end. The angle of the jumper terminal to be mounted should be 300 with respect to the vertical line. The area of bearing surface on all the connections shall be sufficient to ensure positive electrical and mechanical contact. The resistance of the clamp when compressed on Conductor shall not be more than 75% of the resistance of equivalent length of Conductor.

The assembly shall not permit slipping of, damage to, or failure of the complete conductor or any part thereof at a load less than 95% of the ultimate tensile strength of the conductor.

3.4.6. ERECTION

3.4.6.1. GENERAL:

The details specifications given below are intended for general description of quality, workmanship etc for the items given under clause 3.1.0 above but do not cover minutes details of the work. In the absence of relevance details in the specifications the work shall be executed according to the prevailing practices and to the discretion of the site engineer.

3.4.6.2. TYPE OF FOUNDATION:

Construction of foundation is not in the scope of this work.

3.4.6.3. TOWER ERECTION:

Erection of towers is not in the scope of this work.

3.4.6.4. STRINGING OF CONDUCTOR:

The Hotline stringing of the conductors shall be done in a most standard method used for such lines, which shall be indicated in the tender. The tenderer shall give complete details of the stringing method they propose to follow and indicate its adaptability and advantages. They shall also indicate the tools and equipment required for stringing by the method proposed by them. The contractor shall use his own stringing and erection tools and other equipment.

The contractor shall be entirely responsible for any damage to the towers or the conductors during stringing.

3.4.6.5. PULLING OPERATION:

The earth wire shall be strung and securely clamped to the towers before the conductors are drawn up in order of the top conductor first.

The pulling of the conductor into the travellers (comprising of aerial and ground rollers) shall be carried out in such a manner that the conductor is not damaged or contaminated with any foreign substance and that it may not be rubbed with rough ground surface. The traveler surface in contact with aluminium surface of conductor is not damaged. These shall be equipped with high quality ball and roller bearings for minimum friction.

During pulling out operation the tension in each conductor and earth wire shall not exceed the design working tension of the conductor at the actual prevailing temperature. After being pulled the conductor and the earth wire shall not be allowed to hang in the stringing blocks for more than 96 hours, before being pulled to the specified sag. It shall be ensured that the conductors and earth wire are not damaged due to wind, vibration or other cause.

3.4.6.6. SAGGING IN OPERATION:

The conductors shall be pulled up to desired sag and left in travellers for at least one hour after which the sag shall be rechecked and adjusted. The conductors shall be clamped within 36 hours for sagging in. The sags shall also be checked when the conductors have been drawn up and transferred to the insulator clamps.

At sharp vertical angles the sags and tensions shall be checked on both sides of the angle. Sagging operations shall not be carried out under wind, extremely low temperature or other adverse weather conditions, which prevent satisfactory sagging.

3.4.6.7. JOINTING:

All the joints of the conductor or the earth wire shall be compression type in accordance with the recommendations of the manufacturers, for which the necessary tools and equipment like compressors and dies, grease guns, presses shall have to be arranged by the contractor.

All joints and splices shall be made at least 30 meters away from the structures. No joint or splices shall be made in span crossing over main roads, railways, small rivers or in tension spans. Not more than one joint shall be allowed in one span.

After pressing the joint the aluminum sleeve shall have all corners rounded, burrs and sharp edges removed and smoothened.

3.4.6.8. INSULATOR HOISTING:

Suspension insulator strings shall be used up to deviation of 2 degrees on all 'A' type towers in the line and strain insulators on all 'B', C and D' type towers. Except on approaching towers, all suspension strings will consist of the specified number of insulator discs per string with arching horns on line side only and tension string of specified number of insulator discs per string with arcing horns on both line and tower sides.

Insulator strings shall be assembled on the ground. These shall be cleaned and examined before hoisting. Insulators with hair cracks or clips or those having glazing defects exceeding half centimeter square will not be used. No separate rates shall be quoted for insulator hoisting. The charges shall be included in the rates of string of conductors.

3.4.6.9. ACCESSORIES:

Accessories like vibration dampers; armour rods etc. for the conductor shall also be fitted on the line. Armour rods shall be provided at all suspension support of the conductors and vibration dampers shall be provided at both ends of each span at suitable distances from the supporting points for each phase conductor. All accessories shall be clean, smooth and in perfect condition before fitting.

3.4.6.10. GROUNDING:

The Contractor shall measure the tower footing resistance (TFR) of each tower in the diverted section of the line after it has been erected and before the stringing of the earth wire during dry weather. Each tower shall be earthed and the tower footing resistance shall not exceed 10 ohms. Generally pipe type earthing shall be done in accordance with the latest additions and revisions of:

- IS: 3043 : Code of practice for Earthing.
- IS: 5613 : Code of practice for Design, Installation and maintenance (Part-II/Section-2) of overhead power lines.

The earthing will be effected by burying 3 meters long GI pipe in a 300 mm diameter and 3750 mm deep pit at a distance of not less than 3650 mm diagonally away from the stubs and filling in the pit with finely broken coke having the granule sizes not less than 25 mm and salt in such a way that a minimum cover of 125 mm thick salt mixed coke shall be maintained from the pipe on all sides and that the top edge of the pipe shall be at least 600 mm below the ground level. A 45 X 6 mm-galvanized steel flat shall be used to connect the tower with the pipe. The galvanizing steel strip shall be buried not less than 600 mm deep from the ground level. The tenderer will quote the erection charges for each earthing inclusive of the cost of coke and salt, excavation and back filling etc.

3.4.7. FINAL CHECKING, TESTING & COMMISSIONING

- (a) After completion of the works, final checking of the line shall be done by the contractor to ensure that all the foundation work; tower erection and stringing have been done strictly according to the specifications and as approved by the Employer. All the works shall be thoroughly inspected keeping in view the following main points:
 - 1. All the tower members are correctly used strictly according to final approved drawings are free of any defect or damage whatsoever.
 - 2. All the bolts are fully tightened and they are properly punched.
 - 3. The stringing of the conductors and earth wire done to maintain proper sag.

The contractor shall submit a report to the above effect. After final checking the line shall be tested for insulation and any defect found shall be rectified by the contractor.

(b) After satisfactory tests on the line and on approval by the Employer the line shall be energized at full operating voltage before handing over.

Section - 4 General Conditions of Supply and Erection of AEGCL

This Section 'General Conditions of Supply and Erection of AEGCL' supplementary to Section -5 'Special Conditions of Contract' of this document and can be downloaded from www.aegcl.co.in. Whenever there is a conflict, the provisions in SCC or the other Sections of this bid document shall prevail over those in the 'General Conditions of Supply and Erection of AEGCL'.

Section - 5 Special Conditions of Contract

5.1.0 DEFINITION OF TERMS

"Contract" means the Contract Agreement entered into between the Purchaser and the Contractor, together with the Contract Documents referred to therein; they shall constitute the Contract, and the term "the Contract" shall in all such documents be construed accordingly.

"Contract Documents" means the documents listed in Article 1.1 (Contract Document) of the Contract Agreement (including any amendments thereto).

"Contract Price" means the price payable to the Contractor as specified in the Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.

"Day" means calendar day

"Year" means 365 days.

"Month" means calendar month.

"Party" means the "Purchaser" or the "Contractor", as the context requires.

"Purchaser" means the Assam Electricity Grid Corporation Limited (in short AEGCL) and its assignees.

The "*Contractor*" shall mean the tenderer / bidder whose tender/ bid has been accepted by the "Purchaser" and shall include the bidder's legal representatives, successors and assignees.

"Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Contractor is required to supply to the Purchaser under the Contract.

"Delivery" means the transfer of the Goods from the Contractor to the Purchaser in accordance with the terms and conditions set forth in the Contract.

"Completion" means the fulfilment of the Related Services by the Contractor in accordance with the terms and conditions set forth in the Contract.

"Related Services" means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the Contractor under the Contract.

The "Specification" shall mean the "Purchaser's Requirements".

"Contractor" means the natural person, a company/firm, or a combination of these, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Agreement, and includes the legal successors or permitted assigns of the Contractor.

5.2.0 CONTRACT DOCUMENTS

5.2.1. Subject to Article 1.2 (Order of Precedence) of the Contract Agreement, all documents forming part of the Contract (and all parts thereof) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

5.3.0 LEGAL JURISDITCTION

5.3.1. For any litigation arising out of the contract which cannot be resolve through mutual agreement or through Arbitration the honorable Guwahati High Court will have sole jurisdiction of all settlement.

5.4.0 LANGUAGE

5.4.1. The ruling language of the Contract shall be English.

5.5.0 SCOPE OF WORK

- 5.5.1. The Goods and Related Services to be supplied shall be as specified in section 3- Purchaser's requirement and quantity as stated in Schedule No. 1 of Section -2, Bidding Forms.
- 5.5.2. Unless otherwise stipulated in expressly limited in the *Purchaser's Requirements*, the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.

5.6.0 DELIVERY SCHEDULE

- 5.6.1. Contract completion period shall be counted from contract commencement date. Complation of the work shall be within **6(Six) months** from Contrat commencement.
- 5.6.2. The Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Article 3 of the Contract Agreement (Contract Forms) or within such extended time to which the Contractor shall be entitled under SCC *Clause 5.16.0* hereof.

5.7.0 CONTRACT PRICE

- 5.7.1. The Contract Price shall be as specified in Article 2 (Contract Price) of the Contract Agreement.
- 5.7.2. Unless an escalation clause is provided for in the **Article 2 (Contract Price)**, the Contract Price shall be a firm shall not subject to any alteration, except in the event of a Change in the scope or changes in applicable tax rates or as otherwise provided in the Contract.

5.8.0 TERMS OF PAYMENT

- 5.8.1. The contract price shall be paid as specified in subsequent sub-clauses, if not provided in Contract Forms, Section-6.
- 5.8.2. Payment against supply of equipment and F&I shall be made as follows: -
 - 1. Within 60 (sixty) days from the date of submission of the invoice against delivery of material, 80% (eighty percent) payment of the invoice value(without GST) would be made along with 100% GST on receipt and acceptance of materials in full and good condition.
 - 2. In total 4 (four) Nos. of progressive invoice/ bill would be entertained.
 - 3. For payment upto 80% of the total contract value, maximum 4 (four) Nos. of progressive invoices/ bills would be entertained.
 - 4. Final invoice/ bill of 20% would be entertained on completion work to the satisfaction of purchaser.
- 5.8.3. Documents required along with invoice: Following documents need to be submitted along with invoice -
 - (i) Application for payment
 - (ii) Contractors invoice showing LOA reference, Goods description, quantity dispatched, unit reclamation price, total amount (6 Copies)
 - (iii) Packing List(for supply)
 - (iv) Railway receipt/ LR (For supply)
 - (v) Manufacturer's guarantee certificate of Quality (For supply)
 - (vi) Material inspection Clearance Certificate for dispatch issued by Purchaser (For supply)
 - (vii) Insurance certificate(For supply)
 - (viii) Physical verification certificate of material received at site by Purchaser/Purchaser's site representative (For supply).
 - (ix) Work completion certificate(for erection and stringing work)

5.8.4. ADVANCE PAYMENT

No advance payment is applicable for this contract.

5.9.0 PERFORMANCE SECURITY DEPOSIT

- 5.9.1. The successful bidder shall have to deposit to the extent of **10% (Ten percent) of the Contract price** as performance security (Bank Guarantee), <u>within fifteen (15) days of receipt of notification of award</u>, duly pledged in favor of the Managing Director, AEGCL and such security deposits shall be valid up to 60(sixty) days beyond the warranty period as per **clause 5.11.3**.
- 5.9.2. If the Contractor fails or neglects to observe, perform any of his obligations under the contract, it will be lawful for the "Purchaser" to forfeit either in full or in part at his absolute discretion, the security deposit furnished by the Contractor.
- 5.9.3. No interest shall be payable on such deposits.
- 5.10.0 RETENTION MONEY

- 5.10.1. Deduction shall be as per payment terms clause no. 5.8.2.
- 5.10.2. No interest shall be payable on such deductions/retentions.

5.11.0 WARRANTY

- 5.11.1. The Contractor/Manufacturer warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 5.11.2. The Contractor/Manufacturer further warrants that the Goods shall be free from defects arising from any act or omission of the Contractor or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 5.11.3. The warranty shall remain valid for **36 (Thirty Six)** *months* from the date of successful commissioning after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Purchaser's Requirement. Bidder may at its discretion offer extra warranty which shall be evaluated in the mark based evaluation system
- 5.11.4. If during the Period Warranty any defect should be found, the Purchaser shall give Notice to the Contractor/Manufacture stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Contractor/Manufacturer to inspect such defects.
- 5.11.5. If having been notified, the Contractor/Manufacturer fails to remedy the defect within a period of 15 (fifteen) days, the Purchaser may, following notice to the Contractor/Manufacturer, proceed to do such work, and the reasonable costs incurred by the Purchaser in connection therewith shall be paid to the Purchaser by the Contractor or may be deducted by the Purchaser from any monies due the Contractor or claimed under the Performance Security.

5.12.0 QUANTITY VARIATION

5.12.1. "Purchaser" shall have the right to increase/decrease the ordered quantity by 35% within 50 days of the period of completion and the same shall be carried out at the same rates /prices and terms and conditions stipulated in the contract except in regard to completion schedule, which shall be mutually agreed upon in case of enhancement of the ordered quantity.

5.13.0 INSPECTION AND TESTING

- 5.13.1. The Contractor shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in Sections 3, Purchaser's Requirements.
- 5.13.2. The inspections and tests shall generally be conducted on the premises of the Contractor/Manufacture. Subject to Sub-Clause 5.13.3, The Contractor shall furnish, all reasonable facilities and assistance, including access to drawings/process chart and production data to the inspectors at no charge to the Purchaser.
- 5.13.3. The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in SCC Sub-Clause 5.13.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 5.13.4. Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice (not less than 21 days) of such test and/or inspection and of the place and time thereof to the Purchaser. The Contractor shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 5.13.5. The Contractor/manufacture shall provide the Purchaserwith a certified report of the results of any such test and/or inspection.

- 5.13.6. The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Contractor shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to SCC Sub-Clause 5.13.4
- 5.13.7. If it is agreed between the Purchaser and the Contractor that the Purchasershall not attend thetest and/or inspection, then the Contractor may proceed with the test and/or inspection, and should provide the Purchaser with a certified report of the results thereof.
- 5.13.8. The Contractor agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to SCC Sub-Clause 5.13.5 & 5.13.7, shall release the Contractor from any warranties or other obligations under the Contract.

5.14.0 INSURANCE

- 5.14.1. The "Contractor" shall, have, unless, otherwise specified by the Purchaser, insure the materials through their underwrites at their cost and shall keep it insured against any loss/ damaged/ pilferage in transit, destruction or damage by fire/ flood, without exposure to vagaries of weather or through riot, civil commotion, war or rebellion, for the full value of the materials until the materials are received at the purchaser's destination store.
- 5.14.2. The "Contractor" shall be responsible for safe arrival at destination, unloading and receipt of the materials by the consignee. The Purchaser will discharge consignee's responsibilities only and shall not be responsible for any damage/ loss/ pilferage/ non-delivery by the carriers.
- 5.14.3. In case of any loss/ damage/ pilferage/ non-delivery/ short delivery by carriers etc.; the Contractor shall replace free of cost missing / damaged / lost materials within 30(thirty) days from the receipt of report thereof from the consignee(s) without waiting for settlement of their claims with their carriers / under-writers. Normally, such reports from the consignee(s) to the Contractor shall be initiated within a period of 30(thirty) days from the date of receipt of each consignment by him /them.
- 5.14.4. If it is considered necessary that the damage equipment either in part or in full to be sent back to the manufacturer's works for repair, the manufacturers/ Contractors will furnish the Bank Guarantee for the full value of equipment needing repairs and such Bank Guarantee shall remain valid till such time, the equipment are repaired and returned to the consignee in good condition. The to and fro freight, handling and insurance charges in such cases will be borne by the Contractor.
- 5.14.5. Unless, otherwise mutually agreed upon, in case of failure by the Contractor to replenish /make good of the loss /damage /short supplied quantities, within the stipulated period, the Purchaser reserves the right to forfeit the security deposit and/ or adjust any outstanding payment to the "Contractor" with the Purchaser or take any other appropriate action.

5.15.0 FORCE MAJEURE

- 5.15.1. "Force Majeure" shall mean any event beyond the reasonable control of the Purchaser or of the Contractor, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected, and shall include, without limitation, the following:
 - (a) war, hostilities or warlike operations whether a state of war be declared or not, invasion, act of foreign enemy and civil war
 - (b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion and terrorist acts
 - (c) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local state or national government authority

- (d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine and plague
- (e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster
- (f) shortage of labor, materials or utilities where caused by circumstances that are themselves Force Majeure.
- 5.15.2. If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.
- 5.15.3. The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended in accordance with **SCC Clause 5.16.0**.

5.16.0 EXTENSION OF TIME FOR COMPLETION

- 5.16.1. The Time(s) for Completion specified in the Article 3 of the Contract Agreement (Contract Forms) shall be extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:
 - (a) any Change in the scope of works by the Purchaser; which justifies extension of completion time as provided in **SCC Clause 5.12.0**; and
 - (b) any occurrence of Force Majeure as provided in SCC Clause 5.15.0.
- 5.16.2. Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Purchaser's Representative a notice of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Purchaser and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Purchaser's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to a Dispute Board, pursuant to SCC Sub-Clause 5.19.0.

5.17.0 LIQUIDATED DAMAGE

- 5.17.1. The Contractor guarantees that it shall attain Completion of the Works within the Time for Completion specified in the Contract Agreementpursuant to **SCC Sub-Clause 5.6.2**, or within such extended time to which the Contractor shall be entitled under **SCC Clause 5.16.0** hereof.
- 5.17.2. If the Contractor fails to attain Completion of the Works within the Time for Completion or any extension thereof under SCC Clause 5.16.0, the Contractor shall pay to the Purchaser liquidated damages at the rate of 1% (one percent) of the total Contract Price per week or part thereof delay. The aggregate amount of such liquidated damages shall in no event exceed 10% (ten percent) of the total contract price.

However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the Works or from any other obligations and liabilities of the Contractor under the Contract.

- 5.17.3. Once the aggregated "Liquidated damage" reaches10% of the total contract price, the Purchaser may consider following actions:
 - (a) Procure the undelivered material/ equipment and/or complete the balance works from elsewhere giving notice to the Contractor and to recover any extra expenditure incurred thereby for having to procure these materials and works at higher price, at the risk and responsibility of the Contractor; or

- (b) Cancel the contract wholly or in part and to complete the works at the full risk and cost of the Contractor and forfeit the security deposit.
- (c) Declare it as a "Contractual Failure" and act in accordance with SCC Clause 5.18.0.

5.18.0 CONTRACTUAL FAILURE

5.18.1. In the event of contractual failure of any respect on the part of the Contractor, the Purchaser shall be entitled to operate security deposit or any deposit or any payment due to Contractor irrespective of whether his default relates to the particular orders or not towards the Purchaser's claim for damages arising out of the failure. In addition, the Purchaser may black-list or bans the "Contractor" or pending enquiry, suspend him or take any other steps considered suitable.

5.19.0 ARBITRATION

- 5.19.1. If at any time, any question, disputes or differences whatsoever shall rise between the Purchaser and the Contractor, upon or in relation to or in connection with the contract, either party may forthwith give notice to the other in writing of the existence of such question of dispute or difference and the same shall be referred to the adjudication of three Arbitrators, one to be nominated by the Purchaser the other by the Contractor and the third by the President of the Institution of Engineers, India/ Retired or Sitting Judge not below the status of a retired Judge of High Court of India. If either of the parties fail to appoint its arbitrators within 60(sixty) days after receipt of notice of the appointment of arbitrators then the President of the Institution of Engineers /retired or sitting Judge of India, as the case may be, shall have the power at request of either of the parties, to appoint an Arbitrator. A certified copy of the "President" making such an appointment shall be furnished to both parties
- 5.19.2. The arbitration shall be conducted as per provisions of the Indian Arbitration Act, shall be held at Guwahati or any other place as may be decided by the Purchaser. The decision of the majority of Arbitrators shall be final & binding upon the parties and the expenses of the arbitration shall be paid as may be determined by the Arbitrator. However, any dispute arising out of this contract will first be discussed and settled bilaterally between Purchaser and the Contractor.

Section 6 - Contract Forms

This Section contains the format for Notification of Award, the Contract Agreement and Appendices to the Contract Agreement which, once completed, will form the Contract along with the Section 4 and Section 5.The Bidder should note that this Section shall be completed fully at the time of Contract signing. [AEGCL's letter head]

Notification of Award

[date]

To: [Name and address of the Contractor]

This is to notify you that your Bid dated [date] for execution of the [name of the work] against [Bid identification number] for the Contract Price in the aggregate of Rupees [amounts in numbers and words] (as per Price Schedule-1), as corrected and modified in accordance with the Instructions to Bidders is hereby accepted, and it is decide to award on you the ('____Name of wrok____') covering inter-alia supply of all equipment and services specified in bidding document.

You are requested to furnish the Performance Security within fifteen (15) days in accordance with the Conditions of Contract, using for that purpose one of the Performance Security Forms included in Section 6 (Contract Forms) of the Bidding Document.

[Authorized Signature] [Name and Title of Signatory] Assam Electricity Grid Corporation Limited

Attachment:1) Price schedule (with arithmetic correction if any)2) Draft Contract agreement

STAMP(Rs. 100, Non Judicial) **1. Contract Agreement** (Supply and related services Contract)

THIS AGREEMENT made the _____ day of _____, ____, BETWEEN

Assam Electricity Grid Corporation Limited (herein after referred to as AEGCL), a corporation incorporated under the laws of Company Act, 1956 and having its registered office at First Floor, Bijuli Bhawan, Paltanbazar, Guwahati-781001, Assam and [name of Contractor], a firm/company incorporated under the laws of Company Act, 1956 and having its principal place of business at [address of Contractor] (hereinafter called "the Contractor"). [in case of JV insert name and address of the Lead Partner as well as other Partners]

WHEREAS AEGCL desires to engage the Contractor to the 'Ex-works Supply Contract' (also referred to as the 'First Contract') covering inter-alia supply of all equipment and materials for the complete execution of '*Hotline stringing of 2nd circuit of 132 KV Kukurmara (Mirza) – Azara line'* as detailed in the Contract Document ("the Facilities"), and the Contractor has agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

Article 1 1 Contract Documents	1 Contract Documents (Reference SCC Clause 5.2.0) The following documents shall constitute the Contract between the Purchaser and the Contractor, and each shall be read and construed as an integral part of the Contract:
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- (a) This Contract Agreement and the Appendices hereto
- (b) Letter of Price Bid and Price Schedules submitted by the Contractor
- (c) Letter of Technical Bid and Technical Proposal submitted by the Contractor
- (d) Special Conditions of Contract
- (e) General Conditions of Supply and Erection.
- (f) Specification(Purchaser's Requirements)
- (g) Drawings (Purchaser's Requirements)
- (h) Other completed Bidding Forms submitted with the Letters of Technical and Price Bids
- (i) Guaranteed and other Technical Particulars (as submitted with the Bid).
- (j) Any other documents shall be added here
- 1.2 **Order of Precedence** (Reference SCC Clause 5.2.0)

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 SCC Clause 5.1.0) Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the SCC.

Article 2 Contract Price and Terms of Payment	2.1	Contract Price (Reference SCC Clause 5.7.0) The Purchaser 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 [<i>amounts in rupees in words</i>], [<i>amounts in figures</i>] as specified in Price Schedule No. 3 (Grand Summary). The Contract Price is fixed.		
	2.2	Terms of Payment (Reference SCC Clause 5.8.0) The terms and procedures of payment according to which the Purchaser will pay the Contractor are given in the Appendix (Terms and Procedures of Payment) hereto.		
Article 3 Commencement Date and Completion Time	3.1	Commencement Date (Reference SCC Clause 5.6.1) The Commencement Date upon which the period until the Time for Completion of the Works shall be counted from is the date when this Contract Document is signed.		
	3.2	Completion Time (Reference SCC Clause 5.6.2) The whole works under the scope of this Contract shall be completed within 6 (Six) months from Contract Commencement Date with following schedule:		
Article 4. Appendices	4.1	The Appendices listed in the attached List of Appendices shall be deemed to form an integral part of this Contract Agreement.		
	4.2	Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.		

IN WITNESS WHEREOF the Purchaser 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 Purchaser	Signed by, for and on behalf of the Contractor
[Signature]	[Signature]
[Title]	[Title]
in the presence of	in the presence of
[Signature]	[Signature]
[Title]	[Signature] [Title]

APPENDICES

- Appendix 1 Special Conditions of Contract
- Appendix 2 Completion schedule (bar chart)
- Appendix 3 Performance Security.
- Appendix 4 Price Schedule.
- Appendix 5 Guaranteed Technical Particulars
- (Other documents if required shall be added here)

Appendix 3 - Form of Performance Security Bank Guarantee

(To be stamped in accordance with Stamp Act) (The non-Judicial Stamp Paper should be in the name of issuing Bank)

> Bank's Name: Address of Issuing Branch or Office: Email id and phone no for correspondence:

Beneficiary: Managing Director, AEGCL Name and Address of Purchaser

Bid Security No.:

 WHEREAS_______ [name and address of Contractor] (hereinafter called

 "the Contractor") has undertaken, in pursuance of LoA No. ______ dated _____ to execute

 _______ [name of Contract and brief description of Works]

 (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized/scheduled bank for the sum specified therein as security for compliance with its obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of ______ [amount of Guarantee] ______ [in words], such sum being payable in the currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _______ [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

BG expiry date: BG clam date:

Bank's seal and authorized signature(s)

<u>NOTE</u>

- 1. All italicized text is for use in preparing this form and shall be deleted from the final document. An amount is to be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract.
- 2. This guarantee shall be valid upto 30 days beyond the Warranty Period as per the Contract.
- 3. For BG amount equal to or more than 50,000.00, BG should be signed by two bank officers to be valid.
- 4. Address of the banker with email and phone number for correspondence with banker should be clearly mentioned. Any correspondence related to the BG with the banker shall be made to the address mentioned in the BG.