

MINUTES OF PREBID MEETING FOR PACKAGE G (R)

MINUTES OF PRE-BID MEETING HELD ON:	20.12.2023
NAME OF THE PROJECT	ASSAM INTRA-STATE TRANSMISSION SYSTEM ENHANCEMENT PROJECTS
FUNDING AGENCY	ASIAN INFRASTRUTURE INVESTMENT BANK (AIIB)
NAME OF THE WORK	CONSTRUCTION OF 400/220KV, 2X500 MVA; 220/132KV, 2X160MVA AND 132/33KV GIS AT RANGIA (KUMARIKATA) ALONG WITH THE ASSOCIATED TRANSMISSION LINES WITH BAY EXTENSION WORKS AT EXISTING 132/33KV NALBARI GSS (Pkg-G (R))
BID NO. ICB	AEGCL/MD/AIIB/PACKAGE-G(R)/2023/01-G (R)

OPENING REMARKS:

Sri. B. Basumatary, Chief General Manager (PP&D), AEGCL extended a warm welcome to all the prospective bidders and introduced his team.

The Chief General Manager (PP&D), AEGCL briefed on the components included in the concerned Package-G (R) and explained the project's scope and further requested the prospective bidders to table their most prioritized queries. AEGCL assured the prospective bidders that comprehensive reply/clarifications shall be prepared and uploaded in the AEGCL site as well as e-tender portal in response to their raised queries on the bid document.

NAMES OF TENDER QUERIES FINALIZATION COMMITTEE MEMBERS:

1. FROM EMPLOYER:

- 1.Sri. B. Basumatary, Chief General Manager (PP&D), AEGCL, Paltanbazar, Guwahati-01.
- 2.Sri H. Hashmi, Deputy General Manager-II, O/o the MD, AEGCL, Paltanbazar, Guwahati-01
- 3.Sri. H. Gogoi, Deputy General Manager (P&D), AEGCL, Paltanbazar, Guwahati-01.
- 4.Sri David Bathary, Deputy General Manager (Civil), O/o the MD, AEGCL, Paltanbazar, Guwahati-01
- 5.Sri. K. N. Baishya, Deputy General Manager (F&A), AEGCL, Paltanbazar, Guwahati-01.
- 6.Sri. D. Chanda, Assistant General Manager-I, O/o the MD, AEGCL, Paltanbazar, Guwahati-01.
- 7.Sri. Rajashree Sarma, Assistant General Manager-III, O/o the MD, AEGCL, Paltanbazar, Guwahati-01.
- 8.Sri. Satyakam Das, Assistant General Manager (P&D), AEGCL, Paltanbazar, Guwahati-01.
- 9.Sri. Dipanku Goswami, Assistant General Manager (P&D), AEGCL, Paltanbazar, Guwahati-01.
- 10.Sri. Bedanta Kumar Dutta, DM (P&D), AEGCL, Paltanbazar, Guwahati-01.
- 11.Sri. Neelkamal Sarma, DM (P&D), AEGCL, Paltanbazar, Guwahati-01.
- 12.Sri. Joudeep Suklabaidya, DM (P&D), AEGCL, Paltanbazar, Guwahati-01.
- 13.Sri Vishal Adhikari Bose, Transmission Line Expert, PMC, Guwahati-01

2. FROM PROSPECTIVE BIDDERS:

A. BIDDERS THAT WERE PRESENT AT THE PRE-BID MEETING :

1. Mr. Satyabrat Das and Abhishek Sarkar, M/s Hyosung.
2. Mr. Saurav Chakraborty, M/s TBEA.
3. Mr. Akshay Rudra, M/s L&T.
4. Mr. G. Saha and Mr. Asish Kr. Ojha, M/s Shyama Power India Ltd
5. Mr. A. Mukherjee and Nilutpal Baidya, M/s Techno Electric & Engg.Co.Ltd

B. Bidders that submitted queries but did not attend the pre-bid meeting:

1. M/s Badri Rai & Co, Duliajan
2. M/s Seimens,

QUERIES ON BID DOCUMENT (INSTRUCTIONS TO BIDDERS, BDS, GENERAL CONDITIONS, PC ETC.)

TABLE-1(A): VOLUME-1

SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
Section 2: Tender Data Sheet					
1	Section 2: Tender Data Sheet (TDS): ITT 4.1(b)	<p>Maximum number of Partners in a Joint Venture (JV) for a Package is limited to Three (03) only including the lead partner.</p> <p>Lead partner of the JV should be EPC/TURNKEY Electrical Contractors. Both the partners of the JV together shall meet the Technical Qualification & financial qualification criteria. Such JV shall be formed through legally binding JV Agreement.</p> <p>The JV shall legally authorize one of the partners as the lead partner for the purpose of submitting the tender and instructions on behalf of the others and the lead partner shall be exclusively authorized to incur liabilities and receive instruction for and on behalf of JV and its other partner. This authorization shall be evidenced by submitting a power of attorney and intention to form JV agreement signed by legally authorized signatories of the partners. The lead partner shall designate and authorize a person to sign all relevant documents concerning the contract through an affidavit to be executed on non-judicial stamp paper and registered in the court under Indian Jurisdiction. All partners of the JV/shall be jointly and severally liable for the execution of the Contract.</p> <p>This agreement shall be irrevocable and valid till successful completion of the contract.</p>	<p>Maximum number of Partners in a Joint Venture (JV) for a Package is limited to Three (03) only including the lead partner.</p> <p>Lead partner of the JV should be any EPC Contractors. Both the partners of the JV together shall meet the Technical Qualification & financial qualification criteria. Such JV shall be formed through legally binding JV Agreement.</p>	As per Section:3 Clause 2.3 & 2.4	

SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
2	Section 2: Tender Data Sheet (TDS): ITT 11.2 (k)	The Tenderer (for single as well as Joint venture entity) shall submit with its tender the following additional documents: i. Valid Electrical (HT/EHT) license issued by the Authority anywhere in India.	The Tenderer (for single as well as Joint venture entity) shall submit with its tender the following additional documents: i. Valid Electrical license issued by the Authority anywhere in India.	PI refer Addendum	TABLE-2: SI No. 1
3	Section 2: Tender Data Sheet (TDS): ITT 16.1 (b)	Tender Clause: The period following commissioning of plant and services in accordance with provisions of the contract shall be 10 years.	Since mandatory spare parts are not mentioned in line schedules, we understand that undertaking for supply of spare parts is not applicable for line items.	Not required for Transmission Line.	
Section 3: Evaluation and Qualification Criteria					
4	Section 3: Evaluation and Qualification Criteria. 2.5(b) DOCUMENTARY EVIDENCES:	Tender Clause: c) As regards documentary proof to substantiate experience requirement in regard to erection work, experience in manufacturing capacity, supply of towers, execution of works and satisfactory operation is concerned, the bidder will have to submit necessary certificates from User Agency clearly specifying the period of experience and other details. (All the certificates for proof should be attested)	We understand self-attestation is sufficient or if notary attestation is required. Please confirm	PI refer Addendum	TABLE-2: SI No. 2
5	Section 3: Evaluation and Qualification Criteria 1.3.2 Time Schedule	Time to complete the plant and services from the effective date specified in Article 3 of the Contract Agreement for determining time for completion of pre commissioning activities is 24 (Twenty-Four) months. Tenders not meeting the above time schedule shall be rejected. However, no credit will be given for earlier completion.	Due to various activities in scope of work such as substation, transmission line. kindly amend project completion time i.e., "Time to complete the plant and services from the effective date specified in Article 3 of the Contract Agreement for determining time for completion of pre commissioning activities is 36 (Thirty-Six) months" as per earlier/original tender AEGCL/MD/AIIB/PACKAGEG/2022/01-G	No Change. As per bid.	

SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
6	Section 3: Evaluation and Qualification Criteria page 47, I	I. The manufacturer should have designed, supplied, erected, tested and commissioned on supply cum erection basis at least 3 (three) nos. GIS installations of 400kV or above voltage level in India during last 7(seven) years having minimum 7 (seven) nos. complete GIS Bays and which should be under satisfactory operation for at least 3 (three) year as on the originally schedule date of tender opening (Certificate of original customer to be submitted). The bidder should list such works executed to substantiate the requirement of this Clause	Request you to kindly revise the QR as below: The manufacturer should have designed, supplied, and supervised (erection, testing and commissioning) on supply cum supervision (erection, testing and commissioning) basis at least 3 (three) 1(One) no. GIS installations of 400kV or above voltage level in India during last 7(seven) years having minimum 7 (seven) nos. complete GIS Bays and which should be under satisfactory operation for at least 3 (three) year as on the originally schedule date of tender opening (Certificate of original customer to be submitted). The bidder should list such works executed to substantiate the requirement of this Clause. Note- Normally as GIS - Manufacturer (OEM), we design & supply the GIS to our customer and do the supervision in erection, testing & commissioning activity.	PI refer Addendum	<u>TABLE-2: SI No. 3</u>
7	2.4.1 (a) Contract of Similar Size and Nature PART B: (Associated Transmission Lines for 400kV,220kV and 132kV Voltage Level)	iii. The bidder shall submit an undertaking that the tower design, type testing and vetting by CPRI shall be completed within nine (09) months from the date of notification of award (NOA) of work	iii. The bidder shall submit an undertaking that the tower design, type testing and vetting by CPRI/NABL/IIT or equivalent shall be completed within nine (09) months from the date of notification of award (NOA) of work.	PI refer Addendum	<u>TABLE-2: SI No. 4</u>

SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
Section 4: Tender Forms.					
8	Section 4: Tender Forms. Tables of Adjustment Data (The Price adjustment shall as per IEEMA PV Calculator) Table A - Local Currency	Tender Clause: Tenderer's Proposed Weighting a = 0.15	We understand from the tender document, Bidder to follow IEEMA formula only and all the weightages are as per IEEMA formula only. Kindly confirm.	PI refer Addendum	<u>TABLE-2: SI No. 5</u>
Section 7: General Condition of Contract					
9	Section 6: Employer's Requirement, 7. Personnel Requirements	Tender Clause: 5. Community Consultation Officer: Master of Social Work or similar suitable qualification with at least 8 years of experience in Stakeholder Consultations in Assam for linear infrastructure projects. Good understanding of social sensitivities of Assam and community structure and specialized consultation needs would be essential.	A We request you to accept the experience in stake holder consultations in anywhere in India and not limiting only to Assam. Incase Assam experience is mandatory, we request you to accept undertaking from bidder to engage the required community consultant from assam at the tendering stage. We shall submit the CV of the concern Community Consultant officer at the time of site mobilization. Please confirm.	PI refer Addendum	TABLE-2: SI No. 6
10	Section 7: General Condition of Contract, 14. Taxes and Duties	Tender Clause: 14.2 Notwithstanding GCC Subclause 14.1 above, the Employer shall bear and promptly pay all customs and import duties as well as other local taxes like, e.g., a value-added tax (VAT), imposed by the law of the country where the Site is located on the Plant specified in Price Schedule No. 1 and that are to be incorporated into the Facilities.	VAT is abolished in India. We understand that during tender financial evaluation Custom duties and GST will not be considered for evaluation and the same will be paid at actual. Please confirm.	Taxes will be as per prevailing Govt rules.	
Section 8: Special Condition of Contract					

SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
11	Section 8: Special Condition of Contract, 7. Scope of Facilities	<p>Tender Clause: 7.3 The Contractor agrees to supply spare parts for a period of years: Ten (10) Years. An undertaking to the effect that the spare parts shall be made available to AEGCL by the contractor for a period of ten (10) years should be furnished by the contractor. The undertaking shall be under ought by the contractor executed through non-judicial stamp paper of Rs. 100/- or above to be notarized in India.</p> <p>The Contractor shall carry sufficient inventories to ensure an ex-stock supply of consumable spares for the Plant. Other spare parts and components shall be supplied as promptly as possible, but at the most within 6 months of placing the order. In addition, in the event of termination of the production of spare parts, advance notification will be made to the Employer of the pending termination, with sufficient time to permit the Employer to procure the needed requirement. Following such termination, the Contractor will furnish to the extent possible and at no cost to the Employer the blueprints, drawings and specifications of the spare parts, if requested.</p>	Please note that all the inventories are generally kept by the Manufacturers and not by the contractor. Hence, we request that the undertaking shall be provided by the Equipment Supplier/ Manufacturer at the time of drawing approval for the main supply materials like GIS, Transformers, CRP and SAS only. Please confirm.	No change, Sole responsibility will be on EPC contractor.	
12	Section 8: Special Condition of Contract, 27. Defect Liability	Tender Clause: 27.10 a) The critical components covered under the extended defect liability are Power Transformers, IEDs and circuit Breakers, and the period shall be 180 (one hundred eighty) days beyond the defect liability period (as per clause 27.2 of GCC).	We presume that Performance BG period shall not be extended for the extended defect Liability of Power Transformers, IEDs and circuit Breaker. Incase if the performance BG for critical components are required, please inform the BG value.	No Change. As per bid	
13	Section 8: Special Condition of Contract, Completion Time Guarantee - 26.2	<p>Liquidated Damage</p> <p>Applicable rate for liquidated damages shall not exceed: ½% (half percent) per week.</p> <p>Maximum deduction for liquidated damages: 10 (ten)</p>	In place of 10% of the contract price, we request you to kindly limit the maximum deduction to 5% on the undelivered portion.	No Change. As per bid	

SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
		percent of contract price.			
14	Section 8: Special Condition of Contract, Defect Liability - 27.10 page 196	Extended Warranty The other critical components covered under the extended defect liability period are GIS equipment and the period shall be for five (5) years beyond the defect liability period of the contract (as per clause 27.2 of GCC). The Bidder/GIS manufacturer shall furnish performance guarantee for an amount of 20% of the ex-works cost of GIS equipment(s) for a period of five (5) years to cover the extended defect liability period.	We request you to kindly revise the performance guarantee value to 10% of the contract price.	Pl refer Addendum	TABLE-2: SI No. 7

Section 9: Contract Forms

12	Section 9: Contract Forms, Appendix 1: Terms and Procedures of Payment, (A) Terms of Payment	<p>Tender Clause: B. Progressive payments for supply items:</p> <p>i. Within 60 (sixty) days from the date of submission of the invoice against supply, not more than 60% (sixty percent) payment of the total supply invoice value would be made, on receipt and acceptance of materials in full and good conditions (Subject to availability of fund). However, GST amount on invoice would be paid 100% or as per Govt. Rules.</p> <p>ii. Remaining 40% (forty percent) retention amount would be released subject to fulfilment of the following conditions –</p> <p>(a) 20% supply amount would be paid on completion of 50% of the total erection works of that particular item.</p> <p>(b) Next 10% of the supply amount of that supply item would be payable on completion of 100% of the total erection, testing, commissioning works of that particular item.</p> <p>(c) within 60 (sixty) days after receipt of invoice out of</p>	<p>Bidder submitting performance bank guarantee for 10% of contract value, we request to release 90% (ninety percent) payment of the total supply invoice value after successful receipt at site along with 100% GST amount of invoices. Remaining 10% of the supply amount 5% would be paid upon issue of the Completion Certificate and balance 5% upon issue of the Operational Acceptance Certificate as per clause 25, 26 & 27 of GCC, which should be certified by the Project Authority</p> <p>This will enable bidders to remove the financial loading on the prices. please confirm.</p>	No Change. As per bid	
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SL NO	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
		remaining 10% of the supply amount 5% would be paid upon issue of the Completion Certificate and balance 5% upon issue of the Operational Acceptance Certificate as per clause 25, 26 & 27 of GCC, which should be certified by the Project Authority			
13	Section 9: Contract Forms, Appendix 2: Price Adjustment	<p>Tender Clause: Prices payable to the Contractor, in accordance with the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components, Price variation shall be paid to contractor for the specified major items as mentioned below as per formula specified by IEEMA along with documentary evidence for different indices applicable for Price Adjustment from IEEMA. The IEEMA circular are available in the following link https://ieema.org/about-ieema/services/pv-clauses-prices-indices/</p> <p>Schedule No.: 2 (Plant and Equipment supplied from inside the Employer's Country) Substation: 1) Power Transformer 2) Conductor 3) PVC/XLPE Insulated Power Cable Transmission Lines: 1) Fabricated Tower members (including Nut & bolts) 2) Conductor 3) Disc Insulators / Long rod Insulators.</p> <p>No price variation will be allowed on Schedule No.: 4 (Installation and Services)</p>	<p>All major Steel making raw material prices increasing substantially from the month of Aug'23 onwards. Hence, we request you to consider the Price variation for steel material for supply of tower, equipment structure and service portion of concreting and re-inforcement works. These similar conditions are already accepted by other utilities like PGCIL etc.</p> <p>Further, we would like to inform you that WPI Index has increased by 8.38% for Industrial Worker from Apr'22 to Oct'23 increasing the labour cost which ultimately increases the erection & civil cost. These implication forcing contractors to included additional escalation in bid price to mitigate the risk. Hence, we request to consider the price variation for concreting, re-inforcement works and other installation. These similar conditions are already accepted by other utilities like PGCIL etc. A copy of same is enclosed.</p> <p>Kindly accept and issue the amendment on this.</p>	No Change. As per bid	

TABLE-1(B): QUERIES ON TECHNICAL SPECIFICATIONS (VOLUME-2)

SL No	Clause No./ Section/ Page No.	Description	Queries	Response	Reference to Sl. No. of Addendum [Table 2] wherever applicable
1	SLD (Drawing no NAC/AEGCL/RANGIA/SLD-003)		<p>As per referred SLD, four nos of safety grounding switches are indicated for 400kV Line bays and 5 nos safety grounding switches for 400/220kV transformer bays. However, in GIS bay description as per clause 2.6.12.1 of Volume-II, only two and three numbers of safety grounding switches are mentioned for Line & transformer bays respectively.</p> <p>Hence please update the SLD as well as GIS description of 400kV GIS as per clause 2.6.12.1 of Volume-II.</p>	As per Bid	
2	Vol.II, CHAPTER 2: INFORMATION TO BIDDERS (ITB), Clause No. 2.6.5		<p>As per referred clause, "Dismantling of the existing structures of Existing erected distribution/transmission system and transportation of these materials to designated location as provided by the employer" is mentioned.</p> <p>However, as per BPS, supply Rangia and supply Nalbari extn., any line item for dismantling is not given.</p> <p>Kindly check and issue suitable amendment.</p>	<p>The scope of dismantling of any structures shall be included in the BOQ item no 3-Site clearance and necessary excavation</p> <p>For dismantling, line item is included in Sl. No. 34 of ETC Nalbari Ext.; Sl. No. 32 of Civil Works. For Rangia, dismantling part can be quoted in Sl. No. 33.01 of ETC Rangia</p>	

3	400kV GIS building floor plans, Elevation & section - Dwg. No. NAC/AEGCL/RANGIA/400GIS/ARCH-101, R3 & 220kV GIS building floor plans, Elevation & section details - Dwg. No. NAC/AEGCL/RANGIA/220GIS/ARCH-102, R3		As per referred drawings, kindly confirm the following points. 1. The given building dimensions in referred drawing for 400kV GIS Building are such that, all the present and future modules can be installed with additional space for four numbers of extension modules and three numbers of maintenance bays with additional free space. 2. We understand that given building dimensions in referred drawing for 220kV GIS Building are such that, all the present and future modules can be installed with additional space for three numbers of extension modules and three numbers of maintenance bays with additional free space. 3. We understand that given building dimensions are not minimum requirement, same can be further optimized keeping all electrical clearance requirement as per specification. 4. In case any increase in given building size during detail engineering, suitable amendment shall be provided.	Point 1, 2 & 3: Building size is fixed. Considering the necessary future extension. Point-4: In case any change amendment shall be done in pro rate basis for floor area only.	
4	Control Room cum Admin building layout plans & Elevation & Kiosk building architectural floor plans, elevations and sections- Dwg No. NAC/AEGCL/RANGIA/KIOSK/ARCH-113, R0		As per referred drawings, kindly confirm the following points. 1. We understand that given building dimensions are not minimum requirement, same can be further optimized keeping all electrical clearance requirement as per specification. 2. In case any increase in given building size during detail engineering, suitable amendment shall be provided.	Building size is fixed. Considering the necessary future extension. In case any change amendment shall be done in pro rate basis for floor area only.	
5	Electrical Layout Plan - Dwg No. NAC/AEGCL/RANGIA/EL-004, R4		As per referred Electrical layout plan, kindly confirm following points: 1. We understand that the all 400kV,220kV,132kV and 33kV line orientations are fixed and same shall be as per referred layout only. 2. We understand that the provided equipment arrangement is tentative and same can be optimized keeping all electrical clearance as per specification. 3. Shown LM locations and number are tentative only. Same shall be as per lightning calculations.	As per bid	

6	SLD (Drawing no NAC/AEGCL/RANGIA/33kV/SLD-001)		As per referred SLD, Total no. of outgoing bays are 10. However, as per clause 2.6.11 of Volume-II, only 6 nos of line bays are under present scope. Hence, please check and confirm the requirement and update the SLD accordingly.	As per bid	
7	Price schedule, Supply for Rangia S/s, SI No. 1.18,1.19, 1.2, 1.21 - Isolators and accessories as per specification		As per referred items, we understand that - 1. 36kV,1250A, 31.5kA for 3sec Horizontal Double Break type Isolator with/without one earth switch quantity is for outgoing line bays 2. 36kV,2500A, 31.5kA for 3sec Horizontal Double Break type Isolator without earth switch qty is for isolators of bus sectionalizer. 3. 36kV,1600A, 31.5kA for 3sec Horizontal Double Break type Isolator without earth switch qty is for isolators of incomer. Kindly confirm.	As per bid	
8	Price schedule, Supply for Rangia S/s, SI No. 1 - Isolators and accessories as per specification		As per referred items, quantity of 33kV isolators are not matching with number of bays in the present scope as mentioned in the clause 2.6.11 under Volume-II and as per 132/33kV SLD. Please check and update the quantity of 33kV isolator for the same.	As per BoQ	
9	Price schedule, Supply for Rangia S/s, SI No. 6 - Surge arrester as per specification		As per referred item, Quantity of 33kV surge arrester is not matching with number of bays in the present scope as mentioned in the clause 2.6.11 under Volume-II& as per 132/33kV SLD. As per BPS, qty mentioned is 27 whereas actual requirement as per present scope is of 36 nos. Please check and update the quantity of 33kV surge arrester and issue suitable amendment.	As per BoQ	

10	Chapter 10, Technical specification for Isolators		As referred to specification, Horizontal center break type isolator is mentioned for 400kV, 220kV and 132kV voltage level, however, as per BPS & Electrical Layout Plan - Dwg No. NAC/AEGCL/RANGIA/EL-004 double break isolator is mentioned for all voltage levels. As above requirements are contradicting, we request AEGCL to confirm the actual requirement.	As per BoQ	
11	Price schedule, Supply for Rangia S/s, SI No. 2 - Supply of insulator string assembly with antifog insulator and hardware fitting		As per referred item, Quantity of 400kV, 220kV and 132kV insulator string is not matching with number of bays in the present scope as mentioned in the clause 2.6.11 under Volume-II. Please check and update the quantity of 400kV, 220kV and 132kV insulator string and issue suitable amendment. Further, as per BPS line item 2.07, 2.08 and 2.09, supply of 160kN, 120kV and 90kN insulator string is mentioned for 132kV level. Kindly clarify the requirement for the same.	As per BoQ	
12	Price schedule, Supply for Rangia S/s, SI No. 15 - Supply of Testing and Maintenance equipment for GIS as specified (each for 220kV & 400kV GIS)		We understand that all the items mentioned under referred line item shall be supplied commonly for Rangia S/s and not for individual voltage levels. For example, line-item number 15.02, online partial discharge monitoring unit - 2 Nos. are given, among which one number of partial discharge unit for 400kV and one number for 220kV GIS shall be supplied. Kindly confirm whether bidder's understanding is in order.	As per BoQ	
13	BoQ - Supply Rangia - SI No. 5.2, 440V MCCB with power receiving panel for Station service transformer		As per referred line item, 440V MCCB for Station service transformer is mentioned. In this regard, please furnish the following details: a) Location (Outdoor/Indoor) b) Application c) Technical Specification	Location shall be outdoor	

14	Chapter- 2: Information to Bidders (ITB)		As per referred clause, "The capacity of Battery & Battery charger shall be worked out by bidder for complete 400/220/132/33kV substation (including future bays). However, capacity of battery and charger should not be less than as specified in the BPS". However, minimum battery& charger capacity is not mentioned in BPS. Bidder is requested to check & specify the capacity requirement.	Shall be as per sizing calculation	
15	BoQ - Supply Rangia - SI No. 20.02 & 20.4 - Battery charger		As per Chapter 18 of technical specification no.18.2, "D.C. Power Supply shall comprise a set of Battery (220V) of desired capacity, a Float charger and a Float cum Boost Battery Charger (minimum 60A) in parallel operation." is mentioned. Whereas, As referred to line item, quantity of 220V & 48V battery charger is given only for Dual float cum boost charger which is 4 sets. We understand that the term 'Dual' refers to Float & Boost operation in the same charger. Hence the total quantity of Float-cum-boost charger shall be 2 sets and 2 sets of Float chargers. Please confirm.	Total quantity of 220V chargers shall be 4 numbers (2 numbers of FCBC shall be considered as 1 set)	
16	BoQ - Supply Rangia - SI No. 31 - DG set		As per Electrical layout plan, Dwg no.NAC/AEGCL/RANGIA/EL-004, only 1 no of DG is shown. However, as per referred line item, 2 nos of DG set requirement is given in price schedule. Please check & confirm the requirement.	As per BoQ	
17	BoQ - Supply Rangia - SI No. 21 - Power line carrier communication equipment		As per clause no. 2.6.11, LILO of 400kV Balipara - Bongaigaon D/C line at Rangia station. In this regard, please confirm the scope of shifting of PLCC equipment's from any of either station to Rangia station to provide seamless communication system. Please include suitable line items in the BPS.	Shall be as per bid and the price shall be quoted in respective ETC sheet of the BoQ	

18	BoQ - Supply Rangia - SI No.12.04 - Complete Substation System Automation System		As per Chapter-15, Technical specification of Substation Automation system, "Required Inverter of Numeric make, 3 KVA capacity shall be provided by the bidder". However, referred to BoQ SI no.12.04, SAS Inverter of 5kVA is mentioned. Please check and confirm the requirement.	As per BoQ	
19	BoQ - Supply Rangia - SI No. 22 - OPGW equipments equipment		As per clause no. 2.6.11.E, LILO of 400kV Balipara - Bongaigaon D/C line at Rangia station. In this regard, Please furnish the make & model no. of remote end FOTE. Please include suitable line items in the BPS.	As per Bid	
20	BoQ - Supply Rangia - SI No. 21.02 - Power line carrier communication equipment for 400kV		In the referred line item 16Nos. of Digital power line carrier panel is mentioned for 400kV. In this regard we understand that the same is carrier equipment for speech + Protection (2nos. for each line). Further, we understand that supply of PLCC equipment for remote end is also to be covered in the same. As status of bay equipment to LDC & RCC is required, please add a separate line item for carrier equipment for speech + Data.	As per BoQ	
21	BoQ - Supply Rangia - SI No. 21.04 - Power line carrier communication equipment for 132kV		In the referred line item 2Nos. of Digital power line carrier panel is mentioned for 132kV. However, we understand that the same is carrier equipment for speech + Protection (2nos. for each line). Further, we understand that supply of PLCC equipment for remote end is also to be covered in the same. Hence, quantity for the same shall be 8 Nos. Please check and issue suitable amendment for the same. As status of bay equipment to LDC & RCC is required, please add a separate line item for carrier equipment for speech + Data.	As per Bid	

22	BoQ - Supply Rangia - SI No. 21 - Power line carrier communication equipment		We understand that the sufficient number of spare feeders are available in 48V DC distribution board in remote end to provide the 48V DC power supply to PLCC panels at remote end stations which are supplied under present scope. Further, Augmentation of PLCC panel and supply of power cables at remote end shall not be in bidder's scope.	Complete ETC including supply and any additional works for successful operation of remote end job shall be under the bidder's scope	
23	BoQ - Supply Rangia - SI No. 23 & 24 - Power cable		We understand that 220KV cable shall be laid directly buried. Please confirm.	220kV cable shall be laid in trench and quoted in SINo. 17.05 of Civil Works BoQ	
24	BoQ - Supply Rangia - SI No.32- Lighting		In the referred line item, requirement for indoor lighting for example 400kV and 220kV GIS Hall with relay room, control building, kiosk building, residence building, security room, transit camp building etc. shall be included. Please check and include as a separate line item.	Included in the BOQ item No -7 <i>Buildings (including All services i.e. electrical, internal water supply, sanitary works, furnishing complete)</i>	
25	Chapter 32, Mandatory spares		As per referred technical requirement, Mandatory spare line item is not added in BPS. Kindly check and update accordingly.	As per BoQ	
26	BoQ - Supply Rangia - SI No.32- Lighting		We understand that outdoor lighting is required only for present scope of area and outdoor light fixture can be mounted on Lightning mast (LM), Towers, Gantries & buildings. Please confirm.	Required for entire substation area	
27	BoQ - Supply Rangia - SI No.34- Lightning protection		We understand that lightning protection shall be provided only for present scope of work. Lightning protection can be covered with Lightning mast (LM), Towers & shield wires as required for present scope.	Lightning protection shall be provided for the entire switchyard area (present + future)	

28	Vol.1, Section 3: Evaluation and Qualification Criteria, Clause No. 2.5a, Item No.2 - GIS		<p>As per referred clause, Type Test for GIS should have been conducted at any of the following internationally reputed testing laboratories,</p> <ul style="list-style-type: none"> (a) KEMA (Holland) (b) CESI (Italy) (c) CERDA (France) (d) PHELA (Germany) (e) KERI (S. Korea) (f)) CPRI/ERDA (India) (g) Intertek (ASTA), UK (h) ESEF ASEFA, France (i) JSTC, Japan (j) SATS Norway (k) VEIKI, Hungary (m) FGH (Germany) (n) VOLTA (France). (o) STLNA, USA (p) XIHARI, China <p>We request AEGCL to accept the type test reports which were also conducted in Manufacturer's own lab or any third party lab & witnessed by representatives from any of the above internationally accredited testing laboratories.</p>	Not accepted	
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29	Vol.1, Section 3: Evaluation and Qualification Criteria, Clause No. 2.5a, Item No.2 - GIS		<p>As per referred clause, it is mentioned as "The testing Laboratory shall be accepted only if international accreditation certificate is furnished. In case the type test reports are older than 15 years and there is no change in design of the GIS equipment, the manufacturer shall provide an undertaking declaring that there has not been any change of design of the GIS equipment intended to be supply. In case any subcomponent of GIS equipment is tested by the sub suppliers, the manufacturer shall submit such test report along with the certificate of the laboratory from the appropriate accreditation authority."</p> <p>In this regard, we are not envisaging any repetition of type tests in bidders scope if there is no change in design of the GIS equipment. Please confirm.</p>	As per CEA guidelines.	
30	Vol.1, Section 3: Evaluation and Qualification Criteria, Clause No. 2.5a, Item No.2 - GIS		We request AEGCL to accept type test reports of same or higher rating for the offered Gas insulated switchgear. Please confirm acceptance.	Type test report of GIS shall be submitted on same rating	

31	Vol.II, CHAPTER 4: PROJECT IMPLEMENTATION, Clause No. 4.12.1		<p>As per referred clause, it is mentioned as "<i>Provide a list of recommended spare parts (optional spares) together with their individual prices, which will be considered for evaluation.</i>"</p> <p>However, as per clause, 4.12.3, it is mentioned as "Optional spares (shall not be considered for evaluation purpose".</p> <p>As above both the clauses are contradicting, please check and clarify whether optional spares shall be considered for evaluation or not ?</p> <p>If yes, please provide the list of spares to be consider for the subject project to make uniform for all the bidders.</p>	Only the mandatory spares mentioned in the BoQ shall be considered for evaluation.	
32	Vol.II, CHAPTER 7: General technical clauses for Design, Clause No. 7.21.2 & CHAPTER 15 : GIS Equipments, Clause No. 16.6		To prove the Seismic withstand capability of GIS equipment, we shall provide necessary calculations during drawing approval instead of test reports. Please confirm acceptance.	Not accepted. Shall be as per bid.	
33	Vol.II, CHAPTER 7: GENERAL TECHNICAL CLAUSES FOR DESIGN, Clause No.7.21.1 General Conditions of Type Test		<p>As per referred clause, "<i>The Contractor shall submit Type Test Reports for all equipment excluding GIS being supplied by him (as per IEC standard) which, shall not be older than five (5) years, as on date of bid opening for AEGCL's approval.</i>"</p> <p>In this regard, we request AEGCL to accept type test reports inline with recent "CEA Guidelines for type tests for major equipments of Power sector".</p>	Shall be as per latest CEA guidelines	

34	Vol.II, CHAPTER 7: GENERAL TECHNICAL CLAUSES FOR DESIGN, Clause No.7.21.2. Mandatory Type Test for GIS Equipment's		<p>As per referred clause, it is mentioned as "All tests shall be carried out to the satisfaction of AEGCL, in presence of authorized representative of AEGCL, at such reasonable times as AEGCL may require, unless agreed otherwise."</p> <p>We presume type test reports from specified labs as per VOL-I shall be submitted. we are not envisaging any repetition of type tests and witnessing of the same by AEGCL representatives in our scope of works. Please confirm.</p>	As per bid	
35	Vol.II, CHAPTER 7: GENERAL TECHNICAL CLAUSES FOR DESIGN, Clause No.7.27 EARTHING SYSTEM		<p>As per referred clause, it is mentioned as "The earthing system shall comprise a mesh grid formed by hot dip galvanized iron flat bar (GI flat) of 75 X 12 mm(for 220/132 KV & 132/33 KV) and 40 mm MS rod (for 400 KV) buried directly in the ground."</p> <p>However as per BPS, sr. no. 18.011, 40 mm MS rod is mentioned for main earth mat.</p> <p>As both the clauses are contradicting, we understand that bidder to consider 40 mm MS rod for main mat inline with BPS for present scope of work only. Please confirm.</p> <p>Further, kindly clarify the following regarding earthing of 132kV Nalbari S/s: a) Is main earth mat already laid in extension area of 132kV bays b) If already laid, please furnish the spacing and existing 132kV Earthmat layout.</p>	As per BoQ	
36	Vol.II, CHAPTER 7: GENERAL TECHNICAL CLAUSES FOR DESIGN, Clause No. 7.17 -SUPPLY VOLTAGE		<p>a) Please clarify whether auxiliary AC supply nominal voltage shall be 430V or 415V?</p> <p>b) Please clarify whether DC supply nominal voltage for PLCC is 50V or 48V?</p>	As per Bid	

37	Vol.II, CHAPTER 7: GENERAL TECHNICAL CLAUSES FOR DESIGN, Clause No.7.21.2. Mandatory Type Test for GIS Equipment's		As per referred clause, SI No. 18, Tests on solid dielectric components (operating rods, spacers, etc.) is mentioned in the mandatory type test of GIS. However, as per IEC 62271-203, Tests on solid dielectric components (operating rods, spacers, etc.) is not mandatory. Please check and update the type test requirement of GIS as per IEC 62271-203.	As per Bid	
38	Vol II, Chapter 10, sr.no 14, & Chapter 16, Cl. 16.4 Power frequency withstand voltage		For 230kV isolators, power frequency withstand voltage across isolating distance is indicated as 605kVrms. As per IEC 62271-1, the same shall be 530kVrms only. Please check and issue suitable amendments.	As per Bid	
39	Vol II, Chapter 14, CL. 14.5.3		As per the referred clause,CRP panels shall be of the following approximate dimensions: I. Height: 2250mm + 15mm ant vibration pad + 50 mm (base) ii.Depth: 800mm to 1000 mm iii.Width: 800 mm to 1000 mm iv.Operating Height: 1800 mm. We propose Simplex Type Panel dimensions as : Height: 2200mm + 15mm anti-vibration pad + 100 mm (base). However the total height of 2315 will remain same as per spec. Pls confirm	Accepted	
40	Vol II, Chapter 14, Cl. 14.4.2, Interoperability test for CRP		Referred clause indicates "Inter-operability Tests are conducted in manufacturer's own laboratory. In this case (i) the laboratory must have ISO 9000 (or its equivalent) series certification; and (ii) tests have been witnessed by technically qualified representatives of earlier Indian clients of Central/State Transmission Utilities" However, we request you to accept, Inter-operability tests conducted in manufacturer's own laboratory (or) shall be conducted during FAT with offered Main I & Main II relays"	As per bid	

41	Vol II, Chapter 14, Cl. 14.15.1		As per the referred clause, Two sets of relevant software for relay configuration & setting, maintenance etc. to be supplied to each station. The numeric relay and software shall be upgradable. We request you to accept that single set of relevant software for relay configuration & setting, Maintenance etc.. which is adequate for one station.	As per bid	
42	Vol II, Chapter 14, Cl.-14.28/ Distance Protection		As per the referred clause, Distance Relay shall have df/dt functions. Distance Relays have Over/Under Frequency & Over/Under Voltage Functions. However, we shall propose DF/DT as built in of Back-up Protection Relay in Line Feeders. Please accept the same.	As per bid	
43	Vol II, Chapter 14, Cl.-14.16.6.b/ Auto Reclose Function		As per the referred clause, "NUMERICAL AUTO RECLOSING FUNCTION (where specified) shall be an in built feature of Main-I and Main-II protection relay". We propose to provide auto reclose function as part of either BCU or Main protection relays. Please confirm.	As per bid	
44	Vol II, Chapter 14, Cl.-14.24 BAY CONTROL UNIT (BCU)		As per the referred clause, The BCU shall have redundant power supply card i.e. in case of failure of one source/Card fail, the redundant shall pick up instantly. Power supply card failure shall generate necessary alarm to local SCADA. We propose redundant supply source with auto changeover outside the Relay/IED/BCU. In case of power failure in one source, relay shall get supply from other source through auto change-over. Any of the supply failure shall generate necessary alarm to local SCADA. Pls accept the same.	As per bid	

45	Vol II, Chapter 14, CI-14.28 PROTECTION SCHEME FOR PANELS/132kV		<p>As per the referred clause, The backup protection shall be provided with directional single/multi pole relays as specified in Clause 14.16.4. One triple pole over current relays for phase faults and one Earth Fault Relay for Earth Faults without highest elements shall be provided.</p> <p>As the requirement is for numerical relay as per spec, so both functions as built in feature of single numerical relay shall also be acceptable. The protection configuration of relays as explained in spec is for electromechanical relays. Pls confirm/accept.</p>	As per bid	
46	Vol II, Chapter 14, CI-14.28 PROTECTION SCHEME FOR PANELS/33kV		<p>As per the referred clause, The 33kV Feeder Panels shall be provided non directional single/multi pole relays as specified in Clause 14.16.4. One triple pole over current relays for phase faults and one Earth Fault Relay for Earth Faults with high set elements shall be provided.</p> <p>As the requirement is for numerical relay as per spec, so both functions as built in feature of single numerical relay shall also be acceptable. The protection configuration of relays as explained in spec is for electromechanical relays. Pls confirm.</p>	As per bid	
47	Vol II, Chapter 15, Cl. 15.1, Seismic test, Vibration response test		<p>As per IEC 60255-21, -22 & -24, class 2 in seismic test, vibration response test are pertaining to shipboard applications.</p> <p>Hence, we request AEGCL to accept Class 1 for the above tests. Please confirm.</p>	As per bid	
48	Vol.II, CHAPTER 14: TECHNICAL SPECIFICATION FOR CONTROL & RELAY PANEL, Clause No. 14.17.c		<p>We understand that one common bus bar protection relay shall be provided for both 220kV Main bus-1 & 2 with zone discrimination for each bus. Please confirm.</p>	As per bid	

49	Vol.II, CHAPTER 15: SUB STATION AUTOMATION SYSTEM 15.1 GENERAL Clause No. 15.12. GATEWAY - Interface equipment		We are not envisaging any software & hardware up gradation at SLDC. Our scope is limited to Gateway at Substation which shall be suitable for SLDC integration. Please confirm whether Bidder's understanding is in order.	No Software or Hardware upgradation will be required at SLDC end. Gateway Data Configuration should be done as per SLDC's specification. The communication channel from wideband locations, ie. Balipara, Rangia and Bongaigaon to SLDC will be under AEGCL's scope. However, any requirement of Modem or Switches at Sub Station for integration with PLCC which may arise due to distance between gateway and Communication Equipment will be under Bidder's scope. Any Hardware or Software changes or upgradation at the Gateway end required for continuous data transmission as per SLDC specification will be under Bidder's scope.	
50	Vol II, Chapter 16, Cl. 16.13, Site test		<p>The following site tests are indicated in the referred clause:</p> <p>a) Tests as per IEEE C37.122.1 clause 4.10.5</p> <p>b) Demonstration of operational compatibility with SCADA</p> <p>Please note that Test as per IEEE C37.122.1 cl. 4.10.5 is VFTO for GIS. Site testing is not possible for VFTOs. Operational compatibility with SCADA may be possible only through Optical CTs which are not in the scope of this contract. Hence we request AEGCL to check and amend this clause suitably.</p>	As per bid	

51	Vol II, Chapter 17, Cl. 17.13.3.2, Thermosyphon filter system		Referred clause indicates thermosyphon filter system for filtration. As thermosyphon filter is an old technology, we request AEGCL to use any advanced methods such as online Oil drying system which is already in the scope of this package. Hence, the requirement of thermosyphon filter can be Deleted. Please confirm.	As per bid	
52	Vol.II, CHAPTER 17, Clause No. 17.4.0. SPECIFIC REQUIREMENT		<p>As per the referred clause, Necessary test documents of previously tested similar or higher rated (both in MVA and voltage class) transformer shall have to be submitted with the bid. Test reports for higher class of equipment are acceptable with commitment to perform the type tests free of any charge on the particular equipment(s) after the award of contract.</p> <p>Type Test Reports older than five (5) years on the date of Technical bid opening shall not be accepted.</p> <p>We request AEGCL to confirm the following:</p> <p>a) Similar rating here refers to voltage & MVA rating same as that of the offered transformer</p> <p>b) Type tests as listed in Annexure-I (Test plan) shall be performed on one unit of the entire package, if Bidder offers test reports of higher rated Transformer.</p>	As per bid	

53	Vol.II, CHAPTER 17, Cl. 17.4.0 (ii), Dynamic Effect of Short Circuit: For 400 kV Class Transformer		<p>As per referred clause, it is mentioned as <i>"Bidder / Manufacturer should have successfully carried out Dynamic Short Circuit test on 315MVA or above rating 400/220/33kV or 400/230/33kV, 3- Phase Auto transformer as on the originally scheduled date of bid opening and shall enclose the relevant Test Report/certificate along with bid. In case bidder/manufacturer has not successfully tested 315MVA or above rating 400/220/33kV or 400/230/33kV, 3-Phase Auto transformer for Dynamic Short Circuit test, their bid shall be considered technically non responsive. The offered transformer should comply the requirement of similarity clause specified in IS 2026 (PART 5) / IEC 60076-5 with respect to short circuit tested transformer. Further, design review of offered 400kV Class Auto transformer shall be carried out based on the design of short circuit tested 315MVA or above rating 400/220/33kV or 400/230/33kV, 3-Phase Auto transformer.."</i></p> <p>Establishing similarities as per IEC 60076-5,for 500MVA transformer w.r.t 315 MVA short circuit tested transformer is not possible. However, for bid qualification short circuit test report of 315MVA shall be submitted. In order to verify the dynamic effects of short circuits for the offered 500MVA transformer, we request client to accept detailed calculations by checking against the manufacturer's design rules for short circuit strength as per IEC 60076 part-5 in case of non availability of short circuit test report.</p>	As per bid	
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54	Vol.II, CHAPTER 17, Cl. 17.4.0 (ii), Dynamic Effect of Short Circuit: For 220 kV Class Transformer		<p>As per referred clause, it is mentioned as <i>"Bidder / Manufacturer should have successfully carried out Dynamic Short Circuit Test on 160 MVA or above rating, 220/132/33 kV Auto transformer as on the originally scheduled date of bid opening and shall enclose the relevant Test Report / Certificate along with bid. In case bidder has not successfully tested 220/132/33 kV, 160 MVA or above rating Auto-transformer for Dynamic Short Circuit Test, their bid shall be considered technically non-responsive. The offered transformer should comply the requirement of similarity clause specified in IS 2026 (PART 5) / IEC 60076-5 with respect to short circuit tested transformer. Further, design review of offered transformer shall be carried out based on the design of short circuit tested transformer"</i></p> <p>We request client to accept dynamic effects of short circuit by detailed calculations by check against the manufacturer's design rules for short circuit strength as per IEC 60076 part-5 in case of non-availability of short circuit test report.</p>	Not accepted	
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55	Vol.II, CHAPTER 17, Cl. 17.4.0 (ii), Dynamic Effect of Short Circuit: For 132 kV Class Transformer		<p>As per referred clause, it is mentioned as "Bidder / Manufacturer should have successfully carried out Dynamic Short Circuit Test on 50 MVA or above rating, 132/33 kV Power transformer as on the originally scheduled date of bid opening and shall enclose the relevant Test Report / Certificate along with bid. In case bidder has not successfully tested 132/33 kV, 50 MVA or above rating transformer for Dynamic Short Circuit</p> <p>Test, their bid shall be considered technically non-responsive. The offered transformer should</p> <p>comply the requirement of similarity clause specified in IS 2026 (PART 5) / IEC 60076-5 with respect to short circuit tested transformer. Further, design review of offered transformer shall be carried out based on the design of short circuit tested transformer.</p> <p>We request client to accept dynamic effects of short circuit by detailed calculations by check against the manufacturer's design rules for short circuit strength as per IEC 60076 part-5 in case of non-availability of short circuit test report.</p>	Not accepted	
56	Approach road lighting		Please clarify whether approach road lighting (outside the plot boundary) is in the scope of this package. If required, please add a separate line item in the BPS.	Included in Approach Road	
58	Cables		Both IS & IEC standard requirements are mentioned for cables. In this regard, kindly confirm the applicability of IS or IEC standard for EHV cable, HV and LT cables. Kindly note, design of cables as per IS standard and testing of cables as per IEC is not possible and vice versa. Please check and confirm the requirements.	As per bid	

59	Drawings		<p>Kindly provide the following drawings/Inputs for the proposed Substation.</p> <ol style="list-style-type: none"> 1. AC & DC SLD. 2. Typical cable trench sections 3. Type of cables and cable sizes to be followed along with specification. 	<p>1. Shall be decided during detailed engineering 2. Drawings for A, B, C AND D type provided. For 220 kV cables trench shall be designed by Contractor. 3. As per bid and BoQ.</p>	
60	<p>NMS integration</p> <p>Vol.II, CHAPTER 29:SPECIFICATIONS FOR COMMUNICATION EQUIPMENT FOR ESTABLISHMENT OF FIBRE OPTIC COMMUNICATION SYSTEM</p> <p>Clause No. 29.1 Scope and General Requirements</p>		<p>As per referred clause, Integration with existing NMS at SLDC is under present scope.</p> <p>Please clarify the existing make and model no. of NMS for following substations-</p> <ol style="list-style-type: none"> 1.Balipara (PGCIL) 2.Bongaigaon(PGCIL) 3.Amingaon (AEGCL) 4.Rangia(Existing)(AEGCL) 	<p>No NMS integration under the scope of this bidder</p>	
61	CDCS integration		<p>We understand that integration with existing CDCS at SLDC in not under present scope.</p> <p>Incase same needs to be considered under present scope, client is requested to provide make & Model no. of existing CDCS and requested to issue suitable amendment for the same.</p>	<p>Integration with existing CDCS at SLDC is under the scope of the succesful bidder. CDCS SAMAST METERING Make: Server (HP); Model: HP PROLiant DL 360 R440; Storage server: DELL EMC2. Price for Integration of CDCS at SLDC shall be quoted in Sl. No. 11.17 of ETC Rangia BoQ sheet.</p>	

62	CHAPTER 16: GIS EQUIPMENTS, clause 16.5.1.4 , Pre insertion resister: 400 kV circuit breakers for line bay (as per the provisions of bid proposal sheet) shall be provided with single step pre insertion closing resistors (wherever the requirement of PIR is explicitly specified so) to limit the switching surges to a value of less than 2.3 p.u for 400kV. PIR contacts should open immediately after closing of main contacts or At least 5 ms prior to opening of main contacts at rated air/gas pressure where the PIR contacts remain closed.		We understand the scheme requirement is one and half breaker type, however there is no mention of Pre insertion resistor (PIR) requirement for bays in SLD (Drawing no NAC/AEGCL/RANGIA/SLD-003) and their respective quantities. Request to kindly confirm the requirement and exact quantity of PIR bays for 400kV line bays.	As per bid	
63	Chapter 7 : General technical clauses for design : Clause 7.12		We would like to inform you that, we shall provide the RAL 7032 for GIS enclosure and LCC panel, We supplied this same model to all utilities in India. Kindly accept the same.	As per type tested design of GIS OEM	
64	Technical specification of SAMAST Meter Technical specification of CRP : 30.2 Constructional Feature , 14.14.1(b) ABT Trivector Meters		Constructional feature of ABT meters are contradictory in the documents mentioned, pls clarify whether flush mounting type meter with rear terminal provision or vertical surface mounting with lower terminal provision is required.	Flush mounting type ABT meter	

65	9.14.2 General Specification of Numerical Relays : Integrated Numerical Transformer Differential Protection as Main –I & Main-II		We understand that 2 Nos, Transformer Protection Relay in Main I & Main II configuration is to be proposed with inbuilt overflux, high impedance REF & backup non directional protection functions, pls confirm if the bidder's understanding is in line with the project requirement or not.	As per bid	
66	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.3, The switchgear, which shall be of modular design, shall have complete phase isolation.		For the offered 220kV the busbar enclosure shall be three phase encapsulated and the other modules shall be single phase encapsulated; we understand that this design is acceptable as per clause 16.2 of the GIS specifications. Request a concurrence on the same	As per bid	
67	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.5, Continuous bus lengths without gas segregation shall not be acceptable for any voltage level.		The requirements of repair, maintenance and service continuity as per IEC standard and the provided GIS specifications are complied by manufacturer	Continuous bus lengths without gas segregation shall not be acceptable for any voltage level. The bus bars shall be segregated after each bay module (line/transformer/tie/bus coupler etc.)	
68	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.5, The devices shall provide continuous and online monitoring (Display at SAS) of the density of the gas.		Kindly confirm weather an output of 6-20mA from the Gas density monitors will be required for the monitoring requirement	Not accepted. Output shall be 4-20mA	

69	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.8, The material and thickness of the enclosures shall be such as to withstand an internal flash over without burns through for a period of 300 ms at rated short time withstand current.		This value shall be in line with IEC 62271-203	As per bid	
70	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.13, In case the leakage under the specified conditions is found to be greater than 0.5% after one year of commissioning, the manufacturer will have to supply free of cost, the total gas requirement for subsequent ten (10) years, based on actual leakage observed during the first year of operation after commissioning.		We infer that an additional 10% extra gas shall be required to be supplied as spare to meet out any contingency requirements	As per bid	
71	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.23, Manufacturer shall submit the study report of VFTO generated for GIS installation for 220 kV and above.		VFTO generally applies to GIS rated 400kV and above, thus a VFTO analysis report shall be provided for this rating only	Not accepted. Shall be as per bid.	

72	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.30, In addition to above suitable portable scissor lift shall be provided for access of distant portion of GIS installation.		All portions of supplied GIS shall be accessible using walkway and portable ladder, thus provision of portable scissor lift is not envisaged	As per bid	
73	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.44 , Maximum weight of gas in a gas tight section of GIB shall not exceed 400 Kg (for 400 kV)/ 250 Kg (for 220 kV & 132 kV).		The Gas quantities shall be in line with manufacturer standard type tested design suitable form GIS operation at site	As per bid	
74	CHAPTER 16: GIS EQUIPMENTS, clause 16.4.46.1, The arrangement of gas sections or compartments shall be such as to facilitate future extension of any make without any drilling, cutting or welding on the existing equipment. To add equipment, it shall not be necessary to move or dislocate the existing switchgear bays.		We confirm the provision for future extension is available in the offered 400kV/220kV GIS meeting functional requirement of service continuity. We understand that any requirement of design and supply of interface module along with the associated hardware etc. as per tender shall be part of OEM performing future extension. Thus, any interface module supply is excluded from GIS OEM scope.	Design and supply of interface module for future extension shall be under the scope of the bidder	

75	CHAPTER 15: SUB STATION AUTOMATION SYSTEM, SI.No.8: Communication.		As referred to technical specification, SCADA Integration work at existing SLDC is not clear. Bidder's scope is limited only up to the substation gateway for SCADA integration work. We are not envisaging any modification of SCADA software / hardware at existing stations/SLDC/RLDC. Any modification work at the existing SLDC will be in the scope of AEGCL & shall be carried out through respective SCADA OEM. However, Bidder shall ensure seamless data communication through PLCC/Gateway to SLDC. Please confirm.	No hardware/software upgradation at SLDC end is required under the bidder's scope.	
132kV AIS bay extensions at Nalbari SS					
76	Vol.II, CHAPTER 2: INFORMATION TO BIDDERS (ITB), Clause No. 2.6.11, 2.6 Scope of supply & works		Please furnish the following drawings/documents of existing 132kV Nalbari switchyard: a) Existing Layout and SLD (With current ratings, fault ratings, Creepage etc.) of 132 kV AIS. b) Control Building Layout along with sections c) Typical AC/DC SLD d) Existing 132kV Substation Earthing Layout or existing Earth mat spacing. e) Existing 132kV Substation cable Trench Layout f) AC Kiosk / Switchyard panel room layout g) Existing 132kV Substation overall Layout	Shall be shared during detailed engineering	
77	Vol.II, CHAPTER 2: INFORMATION TO BIDDERS (ITB), Clause No. 2.6.11, 2.6 Scope of supply & works		Please clarify, whether existing Control Building is adequate for installation of CRP for present scope of bays. Further, we presume that existing 132kV AIS substation has sufficient space to accommodate the extension bays.	Necessary space is available	
78	SAS integration		Any line item for SAS augmentation of bay under present extension scope is not provided in BPS (Supply Nalbari Extn). Kindly check and issue suitable amendment for the same.	Please refer updated BoQ	

79	SAS integration Vol.II, CHAPTER 2: INFORMATION TO BIDDERS (ITB), Clause No. 2.6.11.C		<p>Please clarify the following regarding SAS at existing substation: As referred to clause, "the dismantling of the Existing SAS, shifting of panels etc. , rewiring and erection, testing and commissioning of all the panels and auxiliary system mentioned above shall be under the scope of the Tenderer, including any modification works."</p> <p>However, Any dismantling line item is not provided in BPS (Supply Nalbari Extn). Kindly check and issue suitable amendment for the same. However ,We understand that we are not envisaging any integration with SLDC/RLDC stations. Please confirm.</p>	Fopr dismantling the bidder shall quote the amount in ETC Nalbari ext. BPS sheet in Sl. No. 30-35.	
80	SAS integration Vol.II, CHAPTER 2: INFORMATION TO BIDDERS (ITB), Clause No. 2.6.11.C		<p>Please clarify the following regarding SAS at existing substation: As referred to clause, "The Existing SAS of M/s ERL make at Nalbari GSS shall be replaced as per the Technical Specification mentioned in the subsequent chapter no. 14 and 15 of the Volume-II of the tender. The integration of the existing Control and Relay Panels, Auxiliary System and the Control and Relay Panels to be supplied under this Project with new SAS shall be under the scope of the Tenderer"</p> <p>However, as per BPS- Sheet 'Supply Nalbari Ext.' SI No 13, line item of "Supply of all equipments, switches, cables and materials required for successful integration of the CRP to the existing SAS (M/S ERL)" is contradicting with present scope of work. Please check and issue suitable amendment for the same.</p>	Please refer updated BoQ	

81	NMS integration Vol.II, CHAPTER 29: SPECIFICATIONS FOR COMMUNICATION EQUIPMENT FOR ESTABLISHMENT OF FIBRE OPTIC COMMUNICATION SYSTEM Clause No. 29.1 Scope and General Requirements		As per referred clause, Integration with existing NMS at SLDC is under the present scope. Please clarify the Make and model no. of existing NMS.	NMS integration is not under the scope of the bidder.	
82	CDCS integration		We understand that integration with existing CDCS at SLDC is not under present scope. Incase same needs to be considered under present scope, client is requested to provide make & Model no. of existing CDCS and requested to issue suitable amendment for the same.	Integration with existing CDCS at SLDC is under the scope of the successful bidder. CDCS SAMAST METERING Make: Server (HP); Model: HP PROLiant DL 360 R440; Storage server: DELL EMC2. Price for Integration of CDCS at SLDC shall be quoted in Sl. No. 11.17 of ETC Rangia BoQ sheet.	
83	Bus bar integration		We are not envisaging any Bus bar integration at existing 132kV S/S. If the same is required, please clarify the following: a) Make and model no. of the existing bus bar protection b) Single/Redundant Bus bar Protection c) Centralized or Decentralized? d) If Decentralized whether the Peripheral Units for the 2# bays are already available? or we need to supply under this contract as part of the augmentation works?	There is no bus bar protection in existing 132/33kV Nalbari GSS	

84	Communication		<p>We are not envisaging any communication integration works at existing 132kV S/S in our scope of supply. If required, Please furnish the following:</p> <ol style="list-style-type: none"> 1. Make & Model of existing FOTE/PLCC. 2. Existing make of SCADA & Software version at existing Station. <p>As far as SCADA integration is concerned, bidder's scope is limited only up to the substation gateway. We are not envisaging any modification of software / hardware at existing stations/SLDC/RLDC.</p> <p>Further, we presume that suitable communication links are already available between existing 132kV SS to SLDC/RLDC Station. We are not envisaging any communication links in our scope of supply.</p> <p>Please Confirm.</p>	Please refer updated BoQ	
85	Earthing & earth mat		<p>We presume that existing earth mat is available at existing station. And our scope is only to extend existing earth mat in area under present scope with the same spacing.</p> <p>We request you to confirm the spacing between main mat of existing substation & the details of Main mat material for our understanding. We also understand that there is no requirement of any soil treatment at the existing station. Please confirm.</p>	Earthing conductor for Nalbari GSS shall be as per BoQ. New earthmat shall be considered for the new switchyard which shall inturn be connected to the existing earthmat as per site.	
86	Cable trench		<p>We presume that existing cable trench is sufficient to cater present scope of cable. Our scope is limited to construction of only branch cable trench for present scope of bay which in turn gets connected to the existing Main cable trench available near the present scope of bays. Please confirm.</p>	New cable trench construction for the new bays shall be in the scope of the bidder.	

87	LT switchgear /Battery & Battery charger		We presume that sufficient number feeders/ capacity is already available in existing MSB, ACDB, MLDB, ELDB, 220/110V DCDB, 48V DCDB, 220/110V DC battery bank and 48V DC battery bank to accommodate present scope extension bays and hence Augmentation of above switchboards & Batteries are not considered. Please confirm.	Please refer updated BoQ	
88	Switchyard Illumination		Please confirm whether existing switchyard illumination is adequate for proposed line bays or not.	Existing illumination is not adequate. The successful bidder shall design the illumination of the new bays accordingly	
89	Conductor type & configuration		Kindly confirm the Conductor type & configuration at existing switchyard: a) Main bus b) Equipment bus c) Strung bus	As per site	
90	Vol.II, CHAPTER 7: GENERAL TECHNICAL CLAUSES FOR DESIGN, Clause No.7.27 EARTHING SYSTEM		kindly clarify the following regarding earthing of 132kV Nalbari S/s: a) Is main earth mat already laid in extension area of 132kV bays b) If already laid, please furnish the spacing and existing 132kV Earthmat layout.	Earthing conductor for Nalbari GSS shall be as per BoQ. New earthmat shall be considered for the new switchyard.	
91	Supply Rangia	Online partial discharge monitoring unit-02 Nos	Kindly note because of the Technical complexity and high price (one system of online PD is equivalent to cost of 3 nos of 400kV bays) of online monitoring now users including PGCIL not opting for Online PDM. Hence we request you to kindly consider it to portable PDM which is inline with the spec of PGCIL and this will be useful in substation. kindly confirm in case bidder will provide a combile system for both 220 & 400kV -wheather it will be acceptable and bidder can quote accordingly.	As per Bid	

			"We would like to inform you that, all control circuit will be use by 1.5sq.mm and CT & VT circuit will be used by 2.5sq.mm. Kindly accept the same, this is inline with all the utility std."	As per bid	
92	13	3- Ø 400 kV, 4000 A, 63 kA-1 sec, metal enclosed SF6 Gas Insulated Switchgear - Line bay Module as per technical specification	We understand the scheme requirement is one and half breaker type, however there is no mention of Pre insertion resistor (PIR) requirement for bays and their respective quantities. Request to kindly confirm the exact quantity of PIR bays for this requirement	As per bid	
93	13.07	400kV, 63kA for 1 sec, SF6 Gas Insulated Bus Duct (GIB) single phase from respective GIS bay module up to SF6 to Air bushings including required support structures, jointing elements and other accessories for Transformer bays, line bays and bus reactor bays as per site requirement. (for both indoor and outdoor of GIS)	We request to provide the AutoCAD copy indicating the clear location of Line Gantries and Power transfer to estimate the exact busduct length. Considering the criticality of the overall requirement it is also recommended to provide the length of the duct that will be considered as a part of estimation,	Auto CAD copy cannot be shared.	
94	14.07	245kV, 50kA for 1 sec, SF6 Gas Insulated Bus Duct (GIB) single phase from respective GIS bay module up to SF6 to Air bushings including required support structures, jointing elements and other accessories for Transformer bays & line bays as per site requirement. (for both indoor and outdoor of GIS)	We request to provide the AutoCAD copy indicating the clear location of Line Gantries and Power transfer to estimate the exact busduct length. Considering the criticality of the overall requirement it is also recommended to provide the length of the duct that will be considered as a part of estimation,	Auto CAD copy cannot be shared.	

95	16.4.3	The switchgear, which shall be of modular design, shall have complete phase isolation.	For the offered 220kV the busbar enclosure shall be three phase encapsulated and the other modules shall be single phase encapsulated; we understand that this design is acceptable as per clause 16.2 of the GIS specifications. Request a concurrence on the same	As per bid	
96	16.4.7	As minimum flexibility in the layout arrangement, it shall be possible to remove the circuit breaker with both bus bar remaining in service	We infer the requirement calls for withdrawal of CB Interrupters during repair and maintainance, and not the circuit breaker enclosure as it is not subject to any faults	As per bid	
97	16.4.8	The material and thickness of the enclosures shall be such as to withstand an internal flash over without burns through for a period of 300 ms at rated short time withstand current.	This value shall be in line with IEC 62271-203	As per bid	
98	16.4.13	In case the leakage under the specified conditions is found to be greater than 0.5% after one year of commissioning, the manufacturer will have to supply free of cost, the total gas requirement for subsequent ten (10) years, based on actual leakage observed during the first year of operation after commissioning.	We infer that an additional 10% extra gas shall be required to be supplied as spare to meet out any contingency requirements	As per bid	
99	3.1 GAS INSULATING SYSTEM:	ii) Any other alarm necessary to indicate deterioration of the gas insulating system.	Not applicable for offered GIS	As per bid	

100	16.4.43.6	Equipotential Earthmat: (below the GIS)	Excluded from GIS OEM scope of supply	The earthing of GIS equipments and the GIS building complete in all respect shall be under the scope of the contractor.	
101	16.4.44	Maximum weight of gas in a gas tight section of GIB shall not exceed 400 Kg (for 400 kV)/ 250 Kg (for 220 kV & 132 kV).	The Gas quantities shall be in line with manufacturer standard type tested design suitable form GIS operation at site	As per bid	
102	16.4.46.1	The arrangement of gas sections or compartments shall be such as to facilitate future extension of any make without any drilling, cutting or welding on the existing equipment. To add equipment, it shall not be necessary to move or dislocate the existing switchgearbays.	We confirm the provision for future extension is available in the offered 400kV/220kV GIS meeting functional requirement of service continuity. We understand that any requirement of design and supply of interface module along with the associated hardware etc. as per tender shall be part of OEM performing future extension. Thus, any interface module supply is excluded from GIS OEM scope.	Design & supply of interface module for future extensions shall be under the scope of the bidder.	
103	16.5.1.4	Pre insertion resistor: 400 kV circuit breakers for line bay (as per the provisions of bid proposal sheet) shall be provided with single step pre insertion closing resistors (wherever the requirement of PIR is explicitly specified so) to limit the switching surges to a value of less than 2.3 p.u for 400kV. PIR contacts should open immediately after closing of main contacts or At least 5 ms prior to opening of main contacts at rated air/gas pressure where the PIR contacts remain closed.	We understand the scheme requirement is one and half breaker type, however there is no mention of Pre insertion resistor (PIR) requirement for bays and their respective quantities. Request to kindly confirm the exact quantity of PIR bays for this requirement	As per bid	

104	16.5.1.4	After completion of site pre-commissioning test, 03 nos. travel transducer shall be handed over to AEGCL.	Excluded from GIS OEM scope of supply	Shall be in the scope of EPC.	
105	16.5.1.18.2	Insulation co-ordination and selection of surge arrestor	Excluded from GIS OEM scope of supply	Shall be in the scope of EPC.	
106	16.5.1.22.2.1	Local Control cubicle shall be free standing, floor mounting type (Standalone). Bay mounted LCCs are not accepted.	Considering the overall compactness of the offering the 220kV GIS LCC shall be bay mounted type	Not accepted. LCCs shall be standalone type.	
107	16.11.9	Cost of the raised platform for temporary storage is deemed to be included in overall cost. The raised platform needs to be made ready before arrival of GIS equipment at site. The contractor may use the available storage areas at site with permission of site in charge.	Shall be in the Civil contractor scope, Not in GIS OEM scope	Under the scope of EPC as per approved storage plan.	

108	16.16.7	16.16 TESTING & MAINTENACE EQUIPMENT	Excluded from GIS OEM scope of supply	Shall be in the scope of GIS OEM	
CIVIL					
400 /220/132/33 kV GIS at Rangia					
1	Price Schedule, Civil works	Price Schedule: Civil works: Item No.- 6	In the provided BoQ, mode of measurement of Fencing is mentioned as Cum but we understand that the fencing shall be measured in rmt/sq.m. basis. Kindly request you to confirm the mode of measurement for security fencing.	The unit of measurement shall be RMT.	
2	PKG G(R) Volume II Chapter 5	General	Kindly provide the following details for the proposed substation for reference purpose: 1. HFL data 2. Contour survey (if available) 3. Typical boundary wall with retaining wall drawing. 4. Typical Security Fencing drawing.	1. HFL data level is mentioned in contour Drawing 2. Contour survey will be uploaded 3. Typical boundary wall drawing will be uploaded 4. Typical Security Fencing drawing will be uploaded.	
3	Price Schedule, Civil works PKG G(R) Volume II Chapter 5	Price Schedule: Civil works & PKG G(R) Volume II Chapter 5, Cl. 5.11 RAIL TRACK / ROAD CUM RAIL TRACK	As per the mentioned clause, we understand that rail cum road is in the scope of bidder. However, in price schedule, there is no separate item for Rail cum road. We understand that rail cum road shall be paid in Civil works Schedule, Item no.9-12 of respected transformer foundations. Kindly confirm if our understanding is correct.	Rail cum Road shall be included in Transformer Pad foundation	

4	Price Schedule, Civil works PKG G(R) Volume II Chapter 5	Price Schedule: Civil works & PKG G(R) Volume II Chapter 5, Cl. 5.17 ROADS AND CULVERTS	As per the technical document Cl. No. 5.17, it is mentioned as "The Contractor shall be responsible for constructing approach roads, sub-station roads and service roads etc" However in price schedule, there is no separate item for approach road and we understand that this shall be claimed in the Item no. 18 of Civil works schedule for Internal roads. Kindly confirm if our understanding is correct and also pls provide the sectional drawing of the approach road for reference pls.	The approach Road shall be as per Internal Road drawings. The design shall be as per technical specification	
5	Price Schedule, Civil works	Price Schedule: Civil works-item no-11	As per the price schedule Item no. 11. The Construction of 160 MVA Power Transformer foundation with Burnt Oil Pit- 2 nos - 2 Nos , but only 1no. Is mentioned in the quantity column. Kindly confirm the quantity of the same.	Only one Burnt oil pit will be constructed for 2 no's 160MVA Transformer. The rate shall be included in Transformer pad foundation.	
6	Price Schedule, Supply Rangia	Price Schedule: Supply Rangia: Item no-23	As per the price schedule, supply of towers and girders is provided in numbers according to the type such as 4T1,4T2,4B1, 2T1, etc. As the details of the type of towers and girders are not available in the tender document, request to pls provide the reference drawings for the same in order to calculate the structure weight.	As per the price schedule, supply of towers and girders will be in numbers. Design will be under the scope successful bidder.	
7	PKG G(R) Volume II Chapter 5	Chapter 5, Cl .no 5.14 SEWAGE SYSTEM & STORM WATER DRAIN	As per the mentioned clause, we understand that the septic tank is in bidder scope. However, there is no separate item for Septic tank in the price schedule. Kindly suggest in which item this shall be claimed or pls include a new item for the same.	Septic Tank shall be included in respective Buildings.	
8	Price Schedule, Civilworks & 002- MASTER PLAN_RANGIA	Children's Park	As per the master layout, there is Children's Park shown in the layout. However, there is no separate item in price schedule for children's park. Kindly suggest in which item this shall be claimed or pls include a new item for the same.	Children's Park will be claimed under the BOQ Item No-28 Landscaping work.	

9	PKG G(R) Volume II Chapter 5	Cl. 5.9 BUILDINGS & GENERAL REQUIREMENTS, i) Finish Schedule	<p>In specification, finishing schedule for control room building, GIS buildings are given. However, finishing schedule for other buildings (i.e.: KIOSK Building, RE'S residence building, Officers Quarter G+1, Staff Quarter G+2, Transit camp building, Security barrack, Store room building, Open Store, Security/Guard room (2 nos.) are not given in the specification.</p> <p>Please furnish the same, in order to estimate the finishing quantities for the above buildings.</p>	<p>Finishing schedule is for all Buildings like GIS Hall/CRB/Colony Building. Note: In case of GIS Hall floor shall be designed as per requirements along with epoxy coating at top.</p>	
10	PKG G(R) Volume II Chapter 5	CHAPTER: 5, Cl.5.3 STANDARDS, DESIGN AND DRAWINGS, Pg.no- 73.	<p>As per the mentioned clause, "All foundations shall rest below virgin ground level and the minimum depth of foundation below the virgin ground level shall be maintained."</p> <p>Request to kindly suggest the minimum depth of foundation to be maintained below the virgin soil.</p>	<p>Foundation will be from virgin ground level. Please refer and follow the respective IS code.</p>	
11	PKG G(R) Volume II Chapter 5	CHAPTER: 5, Cl.5.3 STANDARDS, DESIGN AND DRAWINGS, Pg.no- 73.	<p>As per the mentioned clause, "All foundations shall rest below virgin ground level and the minimum depth of foundation below the virgin ground level shall be maintained."</p> <p>As the average depth of filling in the proposed plot is 2.25m, we understand that the foundations can also be rested on the filled-up soil after proper compaction of the fill soil. Kindly confirm if our understanding is correct.</p>	<p>Foundation will be from virgin ground level. Please refer and follow the respective IS code.</p>	

12	PKG G® Volume II Chapter 5	CHAPTER – 26: SPECIFICATION FOR DESIGN AND FABRICATION OF SUBSTATION STEEL STRUCTURES. Item No.1	As per the mentioned clause “Towers, girders and lightning masts shall be lattice type. structure fabricated from structural steel conforming to IS 2062 (latest). All equipment support structures shall be fabricated from GI pipe conforming to YST 22 or of higher. grade as per IS 806, and the clause.no 26.4.0 Design Parameters mentioned that “ Lattice type. structures are also accepted, however, AEGCL shall have the right to choose any type of structure (lattice/pipe) as per requirement during detailed engineering without any price implication. Based on the above CI, it would have a cost implication in both lattice and pipe structure in deciding detailed engineering stage. We trust that all equipment support structure at all voltage shall be lattice type. kindly confirm.	As per bid	
NALBARI BAY EXTENSION					
1	General	Civil works	Please provide the following drawings/details for the Existing substation at NALBARI. 1. Existing control room building layout 2. Existing Road/Drain layout 3. Existing Cable trench layout 4. Existing gravel spreading layout 5. Soil investigation report (if available) 6. Contour survey (if available) 7. HFL data (if available) 8. Global coordinates in order to estimate the quantum of work.	EPC contractors shall collect the required data by conducting preliminary Site visit.	

2	Price Schedule, Civil works	Civil works: Item no. B-2	Please confirm the location of dumping of debris after dismantling of the existing structures and what is the lead distance from the proposed location of bay extension.	Will be under scope of EPC contractor	
3	Price Schedule, Civil works	-	Please provide the drawings of the structures (boundary wall and other structures if any) to be dismantled in the proposed bay extension station in order to calculate the dismantling qty.	EPC contractors shall collect the required data by conducting preliminary Site visit.	
4	Price Schedule, Civil works	Price Schedule: Supply Nalbari extn.: Item no-10	As per the price schedule, supply of towers and girders is provided in numbers according to the type such as C1, B1, etc. As the details of the type of towers and girders are not available in the tender document, request to pls provide the reference drawings for the same in order to calculate the structure weight.	As per the price schedule, supply of towers and girders will be in numbers. Design will be under the scope of EPC contractors	
MECHANICAL					
A	Rangia S/S.				
1	In Price schedule S.No 29.05 Supply for Rangia S/S. Fire alarm&Detection Item description,		It has been mentioned to consider sprinkler system in control room building, Kiosk Building, panel rooms etc. In general water-based fire protection system is not recommended to be provided where we have electrical panels. Request to kindly check and confirm the requirement.	Please refer updated BoQ	
END					

