


NEPAL ELECTRICITY AUTHORITY
Project Management Directorate
Arunkhola Dumkibas 132/33 kV Substation Project

Minutes of Pre-Bid Meeting

for

**Design, Supply, Installation, Testing and Commissioning of 132/33/11 kV AIS
Substation at Dumkibas, Binayi Triveni Rural Municipality, Nawalparasi
(Bardaghat Susta East) District (Package-A4)**

Date: 10th March, 2022

Venue: Project Management Directorate, Matatirtha, Kathmandu

Subject: Tender No.: PMD/EGMPAF/ADSP-078/79-01

Participants from the Purchaser

Name	Designation	Organization
Mr. Ranjan Raj Gurung	Project Manager	NEA
Mr. Pralhad Kumar Karki	Account Officer	NEA
Mr. Dharendra Singh	Engineer (Civil)	NEA

Participants from Bidders

Representative	Designation	Company Name
Mr. Wang Xichao	Nepal Representative	Power China SEPCO1
Mr. Hemanta		Power China SEPCO1
Mrs. Meenu	Sr. Manager	Gepdec Infratech Ltd.
Mr. Rayan Bhatta	Representative	Energypac Engineering Ltd.
Mr. Naresh Timilsina	Representative	Godrej and Bayec

1. A pre-bid Meeting for Design, Supply, Installation, Testing and Commissioning of 132/33/11 kV AIS Substation at Dumkibas, Binayi Triveni Rural Municipality, Nawalparasi (Bardaghat Susta East) District (Package-A4) was held under the chairmanship of Mr. Ranjan Raj Gurung, Project Manager, NEA welcomed the participants and apprised them about the project.
2. Some of the specific queries raised by the Potential Bidders during the meeting and their responses from the Client (NEA) are given in the Table below.

S.N.	Clause	SECTION/VOLUME	Clause Description as per Tender document	Clarification Required	Clarification From NEA
1	4.11	PROJECT SPECIFIC REQUIREMENT (PSR)	The Quantities listed in the Schedule of Prices represent the estimated quantities for Tender purpose only. The Contractor shall carryout detail design and shall submit final bill of quantity for approval within 120 days from the signing of contract or 60 days after effective date of contract. The actually required quantity may vary from the quantity as listed in price schedule. The Contractor shall agree to make no claim for anticipated profits or for alleged losses because of any difference between the quantities actually furnished and installed and the estimated quantities as indicated in the price schedule at the original quoted unit prices within the total price variations limit of +/- 15% as per the tender conditions.	As per our understanding this contract is on unit rate basis and payment shall be released as per actual quantity executed. Quoted Unit rate for the same will be valid up to +/- 15% total contract price variation.	Confirmed.
2	4.1.17	Employer's Requirements/PSR	Complete indoor & outdoor lighting and illumination of the Switchyard, Substation area, Entrance & Internal Roads, Control Room, Township (Staff Quarters), Security room, store and firefighting pump house buildings, Boundary wall periphery & along main approach roads (with support where ever necessary) , occupancy sensor and Street lights etc. and Emergency DC lighting system complete for switchyard, entrance and staff quarter area to complete the specified scope of works as per technical specification.	During site visit it has been observed that the existing road was very small & almost approx. 5.5 km away from nearest highway & unfit for heavy vehicle movement. Kindly confirm that local authorities will do all necessary modification.	Strengthening of approach road/bridges, if required during transportation of equipment, shall be included in respective item of price schedule.
	4.2.13	Employer's Requirements/PSR	All roads including switch yard within boundary wall and approach Road shall be RCC Roads as per specifications and shown in GA drawing.		
3	-	Annexure III/ Employer's Requirements/PSR	LIST OF PREFERED (SHORTLISTED) MAKE	Please confirm if we can propose additional reputed make for following cases 1. For the items mentioned in the	Equivalent or better make list can be mentioned

				make list 2. For the items not mentioned in the make list	
4	-	-	-	Please confirm if we can reposition the building/bay area to optimize the design during detailed engineering.	Confirmed.
5	-	-	Soil Resistivity	Kindly confirm soil resistivity value for tendering purpose.	ERT is under the scope of Contractor.
6	3.2.e.	Volume II (A) of III/Chapter 11	The area to be excavated/filled shall be cleared of trees, plants, logs, stumps, bush, vegetation, rubbish, slush etc. and other objectionable matter. If any roots or stumps of trees are met during excavation, they shall also be removed. The materials so removed shall be burnt or disposed of as directed by the Employer. Where earth-fill is intended, the area shall be stripped of all loose/soft patches, topsoil containing objectionable matter/materials before filling commences.	We understand that all major Tree cutting, Forest Clearing etc. shall be in scope of Client. Bidder's scope of work is restricted only up to minor bush/vegetation clearing works. Kindly Confirm.	Confirmed
7	Schedule 1/ 1.1	Volume III	110 V DC Distribution Board including cable and accessories to complete the specified scope of work. = 1 set	110 V DCDB is required as per price schedule whereas 220V DC Distribution board is shown in LT SLD. Kindly confirm the same.	Please follow price schedule and amendment III
	LT SLD	Volume IIB	220V DCDB has been shown		
8	Schedule 1/ 1.12.1	Volume III	Dual Mode Float Cum Boost Battery charger for 110 V battery complete with all accessories to complete the specified scope of work (One for 132kV & one for 33kV).	110 V Battery is required as per price schedule whereas 220V Battery is shown	Please follow price schedule and amendment III
	LT SLD	Volume IIB	220V Battery has been shown		

					in LT SLD. Kindly confirm the same.																															
9	Schedule 1/ 1.12.1	Volume III	50 kVA Silent type Diesel Generator (400/230 V, 50 Hz) with control Panel & AMF panel as per technical specification for firefighting system=1 set		50 kVA DG Set is required as per price schedule whereas 500 kVA DG Set is shown in LT SLD. Kindly confirm the same.	Please follow price schedule																														
	LT SLD	Volume IIB	500 kVA DG Set																																	
10	Schedule 1/ 1.3	Volume III	<table border="1"> <tr> <td>1.3</td> <td>Disconnecter Switches/Isolators</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.3.1</td> <td>145 kV, 2000 A, 3 phase, Double Break Disconnecter Switch (without Grounding Switch) complete with all accessories as per specification for Bus Coupler</td> <td></td> <td>Set</td> <td>2</td> <td></td> </tr> <tr> <td>1.3.2</td> <td>145 kV, 1250 A, 3 phase Double Break Disconnecter Switch with one Grounding Switch complete with all accessories as per specification for 132 kV incoming/outgoing Lines</td> <td></td> <td>Set</td> <td>4</td> <td></td> </tr> <tr> <td>1.3.3</td> <td>145 kV, 1250 A, 3 phase Double Break Disconnecter Switch (without Grounding Switch) complete with all accessories as per specification</td> <td></td> <td>Set</td> <td>16</td> <td></td> </tr> <tr> <td>1.3.4</td> <td>145 kV, 1250 A, 3 phase Double Break Disconnecter Switch (without Grounding Switch) complete with all accessories as per specification for using as By-pass isolator for 132 kV Lines</td> <td></td> <td>Set</td> <td>4</td> <td></td> </tr> </table>	1.3	Disconnecter Switches/Isolators					1.3.1	145 kV, 2000 A, 3 phase, Double Break Disconnecter Switch (without Grounding Switch) complete with all accessories as per specification for Bus Coupler		Set	2		1.3.2	145 kV, 1250 A, 3 phase Double Break Disconnecter Switch with one Grounding Switch complete with all accessories as per specification for 132 kV incoming/outgoing Lines		Set	4		1.3.3	145 kV, 1250 A, 3 phase Double Break Disconnecter Switch (without Grounding Switch) complete with all accessories as per specification		Set	16		1.3.4	145 kV, 1250 A, 3 phase Double Break Disconnecter Switch (without Grounding Switch) complete with all accessories as per specification for using as By-pass isolator for 132 kV Lines		Set	4			Please confirm the exact type of requirement. Also, quantity of the same are mismatching in SLD, Section & BOQ. Kindly clarify the quantity	Please refer price schedule
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SLD	Volume IIB	Both Double break type & Center break type has been shown																																		
11	Schedule 1	Volume III	<table border="1"> <tr> <td>1.1.1</td> <td>Power Transformer</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.1.1.1</td> <td>132/33 kV, Three phase, 24/27/30 MVA, ONAN/ONAF1/ONAF2 Power Transformer complete with On Load Tap Changer (OLTC) & RTCC facility, Tank Mounted LA at LV side and Bushing CT on both sides, Oil filled, star/star connected complete with all accessories as specified in technical Specification.</td> <td></td> <td>Set</td> <td>2</td> <td></td> </tr> <tr> <td>1.1.1.2</td> <td>33/11 kV, Three phase, 10/13.33/16.66 MVA, ONAN/ONAF1/ONAF2 Power Transformer complete with On Load Tap Changer (OLTC) & RTCC facility, Tank Mounted LA at LV side and Bushing CT on both sides, Oil filled, delta/star connected complete with all accessories as specified in technical Specification.</td> <td></td> <td>Set</td> <td>2</td> <td></td> </tr> </table>	1.1.1	Power Transformer					1.1.1.1	132/33 kV, Three phase, 24/27/30 MVA, ONAN/ONAF1/ONAF2 Power Transformer complete with On Load Tap Changer (OLTC) & RTCC facility, Tank Mounted LA at LV side and Bushing CT on both sides, Oil filled, star/star connected complete with all accessories as specified in technical Specification.		Set	2		1.1.1.2	33/11 kV, Three phase, 10/13.33/16.66 MVA, ONAN/ONAF1/ONAF2 Power Transformer complete with On Load Tap Changer (OLTC) & RTCC facility, Tank Mounted LA at LV side and Bushing CT on both sides, Oil filled, delta/star connected complete with all accessories as specified in technical Specification.		Set	2			Please confirm the maximum permissible Loss for power transformer since it was not mentioned in the technical specification	Please refer Volume I, Section 9, Contract Forms-Appendix 8												
1.1.1	Power Transformer																																			
1.1.1.1	132/33 kV, Three phase, 24/27/30 MVA, ONAN/ONAF1/ONAF2 Power Transformer complete with On Load Tap Changer (OLTC) & RTCC facility, Tank Mounted LA at LV side and Bushing CT on both sides, Oil filled, star/star connected complete with all accessories as specified in technical Specification.		Set	2																																
1.1.1.2	33/11 kV, Three phase, 10/13.33/16.66 MVA, ONAN/ONAF1/ONAF2 Power Transformer complete with On Load Tap Changer (OLTC) & RTCC facility, Tank Mounted LA at LV side and Bushing CT on both sides, Oil filled, delta/star connected complete with all accessories as specified in technical Specification.		Set	2																																
12	-	-	Levelling of substation		Kindly confirm the height for leveling.	207 m from MSL																														



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13	General		Civil Works	Please confirm whether two dormitory buildings are needed or it can be combined one building.	Please refer BPS.
14	General		Installation	The substation structure/support in bidding documents are made of angle steel , whether other steel forms can be used, such as: steel pipe structure, flange splicing instead of angle steel which the processing and production is more complex.	Please quote as per Bidding Documents.
15	Price Schedule-S1-1.12.2		"110 V, 600 AH maintenance free lead acid sealed type battery complete with all accessories to complete the specified scope of work (One for 132kV & One for 33kV). "mentioned with numbers of 2 set	As our understanding it will be separately 132KV 600AH two sets and 33KV 600AH two sets.	Please refer Amendment-3
16	Chapter 15 – General Technical Requirement, Control & Relay Panels		Chapter 15 – General Technical Requirement, Control & Relay Panels	The fault record system is mentioned in "Chapter 15 – General Technical Requirement, Control & Relay Panels", but it is not mentioned in the BOQ, please clarify whether it is needed. If it is needed, kindly	Please submit as per specification



				request to add this item in Price Schedule.	
17	General		Switchyard panel room	It is not mentioned in the Price Schedule and site layout drawings please clarify whether it is needed.	Please refer Price schedule
18	Employer's Requirements/PSR 4.1.6		Employer's Requirements/PSR 4.1.6/CHAPTER 9: POWER & CONTROL CABLES	The cable core should be cooper as per the clause description of Employer's Requirements/PSR 4.1.6, but as per the description of CHAPTER 9: POWER & CONTROL CABLES, the cable should be aluminum exclude of the control cable. Please clarify which should be followed.	Please refer the bid document
19	Employer's Requirements/PSR 4.1.6		Employer's Requirements/PSR 4.1.6-Complete relay and protection system as per section	The 33KV busbar protection is needed as per the clause of employer's requirements, but it is not mentioned in the Price Schedule, please clarify whether it is needed. If it is needed, kindly request to add this item in Price	Please refer price schedule.



				Schedule.	
20	SCC 26		26.2 Applicable rate for liquidated damages: 0.05 % of the Contract price per each day for such delay. Maximum deduction for liquidated damages: ten percent (10%) of the Contract Price.	The bidder requests the Maximum deduction for liquidated damages: five percent (5%) of the Contract Price.	No changes in clause.
21	GCC 14		14. Taxes and Duties	Please clarify who is responsible to pay the VAT on Schedule No. 3 Design Services and Schedule No. 4 Installation and Other Services	VAT is paid by the employer
22	Contract Form (B) Payment Procedures		Foreign Currency payment shall be made through Letter of Credit (L/C).	Please confirm that all payment for Schedule No. 1 - Plant and Mandatory Spare Parts Supplied from Abroad will be pay by L/C?	Confirmed
23		Volume II(B)/Section 6	Plan Layout for the substation	1. Please provide plan layout of the proposed Dumkibas substation. 2. Please provide overall dimensions of the substation plot drawing provided with documents. Also please confirm the layout can be revised to optimize the total area of the substation. 3. We assume that in	1. Please find the plan layout in Volume II(B) Drawing section for reference purpose only. 2. Plot size: Area=27,000 sq. m, L X B=195m X 145m in average. 3. Confirmed.



				case of any discrepancy in details and rating between Drawings and Price Schedule, details and ratings mentioned in Price Schedule shall prevail. Please confirm.	
24	Chapter 21	Volume II(B)	Technical Datasheets	Please provide technical datasheets in editable format for filling and submission with bid.	Please write us individually email requesting for editable format.
25	1.9	Volume III/Schedule No. 1	Existing Control, Protection, SCADA and Telecom System details for remote substations	1. Price Schedule Sr. No. 1.9 specifies 'Digital Protection Coupler' for remote end. Please provide followings details for remote end substations - a. Existing Control and Protection System Make and Model at '132 kV BARDAGHAT' substation b. Existing Control and Protection System Make and Model at '132 kV SARDI' substation c. Existing SCADA (or RTU) system Make and Model at '132 kV	1. Bidder should arrange site visit by their own and confirm for the same.



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				<p>BARDAGHAT' substation</p> <p>d. Existing SCADA (or RTU) system Make and Model at '132 kV SARDI' substation</p> <p>e. Existing Telecommunication system Make and Model at '132 kV BARDAGHAT' substation</p> <p>f. Existing Telecommunication system Make and Model at '132 kV SARDI' substation</p> <p>2. We assume that any supply or modification of new or existing system at remote end substation is not in scope of this bid. Please confirm.</p>	2. Confirmed.
26	Clause 1	Volume II(A)/Annexure 6	Existing Digital Teleprotection Coupler System details for remote end substations	<p>1. Clause No. 1 of ANNEXURE - VI specifies 'bidders to include all the cost providing necessary equipments/ cards and their installation in Dumkibas as well as far end substations'.</p>	Please refer clarification S.no. 25 above.



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				However the same is not mentioned in Price Schedule. Please confirm the requirement of same and provide details of existing make and model of Digital Teleprotection Coupler at 'BARDAGHAT' & '132 kV SARDI' substations.	
27	Clause 2	Volume II(A)/Chapter 1	Existing Transmission Line Tower details	1. The referred clause specifies construction of new Double Circuit Dead End Tower between existing towers AP12 and AP 11. Please provide following details for existing towers - 1. Line diagram for AP12 and AP11 towers 2. Co-ordinates for AP12 and AP11 towers	Bidder should arrange site visit by their own and confirm for the same
28	Clause 13	Volume II(A)/Chapter 1	Scope of work for LDC	1. The referred clause specifies setting up a optical fiber link at Dumkibas substation and LDC Kathmandu. Please confirm scope	Confirmed.



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				of bid is limited to integration of new telecom system at LDC Kathmandu. Supply of new hardware or augmentation of any existing telecommunication hardware at LDC Kathmandu is not in scope of this bid. Please confirm.	
29	Clause 6.1	Volume II(A)/Chapter 8	Power Transformer Technical Specifications	1. For 33/11 kV, 10/13.3/16.6 MVA transformer, Clause No. 6.1 of General Technical Requirements specifies Impedance value as > 8 % however in Technical Datasheet value of Impedance is mentioned as > 10 %. We assume value mentioned in Technical Datasheet (>10%) should be considered. Please confirm.	Please refer amendment III
		Volume II(B)/Chapter 21		2. In case of discrepancy between specifications mentioned in General Technical	Please refer GCC clause 2



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			<p>Specifications and Technical Datasheet, we assume that details provided in Technical Datasheet should be followed. Please confirm. We assume value mentioned in Technical Datasheet should be considered. Please confirm.</p>	
	<p>Volume II(B)/Section 6</p>		<p>3. For 132/33 kV, 30 MVA transformer, Clause No. 6.1 of General Technical Requirements and Technical Datasheet specify value Impedance as > 11 %, however in Single Line Diagram for 132/33/11 kV Dumkibas substation, Impedance of 132/33 kV, 30 MVA Power transformer is mentioned as 11.9 %. We assume value mentioned in Technical Datasheet (>11%) should be considered. Please confirm.</p>	<p>Confirmed.</p>



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				<p>4. For 33/11 kV, 16.6 MVA transformer, Price Schedule and Technical Datasheet specifies rating of transformer as 10/13.3/16.6 MVA, however in in Single Line Diagram for 132/33/11 kV Dumkibas substation rating of 33/11 kV Transformer is mentioned as 6/8 MVA. We assume value mentioned in Technical Datasheet and Price Schedule (10/13.3/16.6 MVA) should be considered. Please confirm and provide revised SLD in line with the confirmation.</p>	Please refer Price Schedule and technical data sheet
30	1.2	Volume III/Schedule No. 1	33 kV Circuit Breaker	<p>1. For 33 kV Bus Sectionalizer feeder, only 33 kV 1600 Amps Disconnecter Switch is considered as per Price Schedule and Single Line Diagram. Please confirm VCB and Current Transformer is not required for 33</p>	Confirmed.



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				kV Bus Sectionalizer.	
		Volume II(B)/Chapter 21		2. If VCB and CT are to be considered for Bus Sectionalizer Bay then please include the same in Price Schedule and technical datasheet. 3. Technical Datasheet No. 4a - Sheet 2 of 2 specifies 33 kV GIS, please note that as per Price Schedule 33 kV outdoor circuit breakers are VCB type. Please correct the datasheet.	Please refer amendment I
31	1.2,1.3	Volume III/Schedule No. 1	33 kV Disconnecter Switches	1. Ratings of 33 kV Circuit Breaker, 33 kV Disconnecter switch mentioned in Price Schedule does not match with Ratings mentioned in Technical Datasheet. We assume in case of discrepancy in ratings and specifications between Price Schedule and Technical Datasheet, ratings and specifications	Confirmed.



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				provided in Price Schedule to be followed. Please confirm.	
		Volume II(B)/Chapter 21		2. Please confirm quantity of 132 kV Disconnect Switch for busbar mentioned in Sr. No. 1.3.3. The same does not match with the quantity shown in Single Line Diagram. Please check and confirm the quantity as mentioned in Price Schedule should be considered.	It will be finalized during detail design.
32		Volume II(B)/Chapter 21	132 kV Lightning Arrester	1. In chapter 21, two datasheets are provided for 132 kV Lightning Arresters under 3e and 5a. Technical Datasheet 3e is incomplete and hence we assume TDS 5a to be considered for 132 kV Lightning Arrester.	Please fill up TDS 5a
33	1.7	Volume III/Schedule No. 1	11 kV Switchgear	1. Rating of Incomer is mentioned as 2000 Amps in Price Schedule whereas in Technical Datasheet the same is	Confirmed.



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				mentioned as 2000 Amps. We assume that rating of incomer to be considered as 2000 Amps as mentioned in price schedule. Please confirm.	
		Volume II(B)/Chapter 21		2. Rating of Outgoing is mentioned as 800 Amps in Price Schedule whereas in Technical Datasheet the same is mentioned as 1250 Amps. We assume that rating of outgoing to be considered as 800 Amps as mentioned in price schedule. Please confirm.	Confirmed.
34	1.12	Volume III/Schedule No. 1 and Volume II(B)/Chapter 21	Battery and Battery Charger rating	1. In technical datasheet, Control voltage for equipments is mentioned as 220 V DC, however as per Price Schedule, battery and battery charger rating is 110 V DC. We assume that Control and Motor rating to be	Please read 220 V as 110 V. Please follow amendment III too.



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				considered as 110 V DC as per price schedule. Please confirm and provide revised technical datasheet in line with the same.	
35		Volume III/Schedule No. 1	Energy metering	1. As per General Technical Specifications and Technical Datasheet energy meter for all 132 kV, 33 kV and 11 kV bays (except transfer & Bus coupler bays) to be provided for metering and revenue purposes, however the same is not mentioned in Price Schedule. Please include the same in price schedule.	Please submit as per Technical specifications
	Clause 2	Volume II(A)/Annexure V		2. In Annexure V of General Technical Specifications, accuracy class of energy meters is specified as 0.2 class, however in Technical Datasheet accuracy class of Energy meters (kWh meters) is specified as 0.5. We	Confirmed.



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				assume accuracy class of 0.2 to be considered for Energy/kWh meters. Please confirm.	
		Volume II(B)/Chapter 21		3. We assume that Energy meters for 132 kV and 33 kV bays should be mounted in Control Panels and in 11 kV switchgear Energy meters to be installed in LV compartment of switchgear panels. Separate panels for energy meters is not required as per bid specifications. Please confirm.	Confirmed.
36	1.8	Volume III/Schedule No. 1	Control, Relay and Protection Panels	1. Multiple serial numbers and descriptions are missing in Technical datasheet for Control and Relay panel. Few examples are mentioned below - In Datasheet for Control and Relay panel for Transformer, Sr. No. 2,3,4 are missing, description of Sr. No. 6.3 & 6.5 is missing. In	1. Please submit with corrected serial numbers and refer Amendment III too



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				Datasheet for Control and Relay panel for Line, description of Sr. No. 5.5, 5.7 & 6.5 is missing. In Datasheet for Control and Relay panel for Bus Coupler, description of Sr. No. 6.2 is missing. Please provide corrected complete datasheets in editable format for submission with bid.	
		Volume II(B)/Chapter 15		2. For control and protection for transformer, line and bus coupler, common datasheets are provided. Please confirm the same specifications and protections as mentioned in datasheet will be applicable for 132 kV, 33 kV and 11 kV and same protections to be provided for all 3 voltage levels. Please confirm.	2. Confirmed
		Volume II(B)/Chapter 21		3. There is a discrepancy in	3. Please follow clarification no. 36



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				<p>Protection functions mentioned in Chapter 15 (General Technical Requirements) and Technical datasheet for Transformer protection. In General Specifications, Transformer Differential protection, REF Protection and Overfluxing Protection are specified whereas in Technical Datasheet Overcurrent and Earth Fault (Directional & Non Directional) protection is specified. Please recheck and confirm the protection functions required for Power Transformer. Also please provide corrected technical datasheet in line with protection function requirements.</p> <p>4. Please provide technical datasheet for busbar protection.</p>	<p>(1).</p> <p>4. Please submit as per Technical Specifications and price schedule</p>
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37	1.22	Volume II(A)/Chapter 12 and Volume III/Schedule No. 1	Substation Grounding	<p>1. General technical specifications specifies the size of ground conductor as minimum 160 sq.mm., however in Price Schedule size of Copper Grounding conductor is mentioned as 100 sq.mm.. We assume that grounding conductor size shall be 100 sq.mm. as mentioned in the Price Schedule. Please confirm.</p> <p>2. General technical specifications specifies type of Ground Conductor as copper flat conductor or stranded copper wire. We assume that both Copper Flat Conductor and Stranded Copper conductor are acceptable. Please confirm.</p> <p>3. Clause No. 8.2.5 of General Technical Specifications specify maximum size of each grid of grounding mat</p>	<p>1. Please refer amendment III,</p> <p>2. Confirmed</p> <p>3. As per design requirements</p>
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				<p>shall not exceed 4X4 meters. Please confirm if earth mesh size can be increased during actual execution stage based on earthing grid sizing calculations.</p> <p>4. Clause No. 8.4.2 of Chapter 12 specifies fault level for estimation of grounding system as 40 kA/1s, however maximum fault level for system (substation) is specified as 31.5 kA/1s. We assume that fault level for estimation of grounding system for substation to be considered as 31.5 kA. Please confirm.</p> <p>5. Please provide soil resistivity report for proposed substation site if available.</p>	<p>4. ERT is under the scope of contractor.</p>
38		Volume I/Section 3	Evaluation and Qualification Criteria	<p>1. Sr. No. 1 of Section 3 specifies 'Must submit the type test report carried out by reputed</p>	<p>Please refer amendment I.</p>



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				<p>independent testing laboratory for the identical item in the same rating and construction'. Please confirm if type test report for similar transformer with same or higher rating is acceptable.</p> <p>2. Section 3 specifies equipment type test reports should not be older than 7 years. Please note that type test reports are carried on equipments in case of design or rating change only, hence please confirm if type test reports older than 7 years are acceptable if design of the equipment is not changed.</p>	
39	1.22	Volume II(A)/Chapter 1 and Volume III/Schedule No. 1	General Technical Specifications	<p>We assume that in case of discrepancy in specifications and ratings between General Technical Specifications, Technical Datasheet and Price Schedule,</p>	Confirmed.



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				the specifications and ratings mentioned in Price Schedule shall prevail followed by technical datasheet. Please confirm.	
40	2.3.20	Volume III/Schedule No. 4(a) and Volume II(B)/Section 6	Control Room Building	1. Area of Control Room building mentioned in Price schedule is 336 sq.m. whereas area of control room building as per General layout drawing of control room is 352 sq.m. (22 x 16 m). We assume that area mentioned in Price Schedule is to be considered. Please confirm.	Confirmed.
41		Volume II(A)/Chapter 1 and Volume III/Schedule No. 1.22	Scope of work	1. As per Chapter 2 – General Technical Requirement & Schedules of Rates and Prices, we assume that Terminal Towers for Overhead Line (OHL) and hardware for outgoing line are not in scope of this bid. Our scope for 132 kV & 33 kV outgoing lines	1. Confirmed.



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				<p>is limited upto Terminal Tower. Please confirm our assumption.</p> <p>2. Please confirm 12 kV cables for outgoing feeder are to be considered upto terminal tower for 11 kV Overhead Line and these terminal towers will be inside the substation boundary.</p> <p>3. Please provide location of 11 kV terminal towers in Substation Plan view for estimation of 11 kV, 240 sq.mm. cables.</p>	2. Confirmed.
42		Volume II(A)/Chapter 1 and Volume III/Schedule No. 1.22	11kV Distribution Line	<p>Chapter 1 specifies indicative layout drawing for 11 kV is provided in Annexure - I. However drawings are not available in Annexure - I. Please provide indicative layout drawing for 11 kV distribution system.</p>	Design of 11kV Distribution line is under the scope of bid.
43		Volume II(A)/Chapter 8	Power Transformer Tertiary Winding	1. In Technical Datasheet, 11 kV	Tertiary winding not required



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				<p>tertiary winding is specified for 132/33 kV, 30 MVA power transformer, however the same is not mentioned in Price Schedule or general technical specifications. We assume that tertiary winding is not required for 132/ 33 kV, 30 MVA Power Transformer. Please confirm.</p>	
		<p>Volume II(B)/Chapter 21 and Volume III/Schedule No. 1</p>		<p>2. In case tertiary winding is required, please confirm if tertiary winding will be loaded or unloaded type and please provide MVA rating of tertiary winding.</p>	<p>Tertiary winding not required</p>
44		<p>Volume II(A)/Chapter 8 , Volume II(B)/Chapter 21 and Volume III/Schedule No. 1</p>	<p>Overhead conductor</p>	<p>In Technical Datasheet type and size of overhead conductor is mentioned as AAAC Dog (100 sq.mm.), however as per Price Schedule Type and Size of Overhead conductor is ACSR CARDINAL for</p>	<p>Please refer amendment I and submit the data sheet as per technical specifications</p>



Manoj

				132 kV and 33 KV in substation and for 11 kV conductor is AAAC 120 sq.mm XLPE Covered Conductor. Please provide corrected datasheets (separate for ACSR Cardinal and AAAC 120 sq.mm. XLPE conductor in editable format for submission with bid.	
45		Volume II(B)/Section 6 and Volume III/Schedule No. 1	Substation Grounding System	We assume that Earth Mat to be considered in area under current bid scope only and earth grid for future bays/works will not in current scope of works. Please confirm.	Confirmed.
46		Volume II(A)/Chapter 12 , Volume III/Schedule No. 1.23 and Volume II(B)/Section 6	Erection material Hardwares and Miscellaneous	1. Clause No. 1.5 of Chapter 12 specifies that 'as an alternative to disc insulator, bidder can offer long rod porcelain insulators strings', however schedule of prices specify disc insulators. We assume that long rod porcelain insulators	It will be finalized during detail design.



Kanjan

				<p>strings are acceptable in place of disc insulators. Please confirm.</p> <p>2. Sectional drawing for Line Bay, Transformer Bay and Bus Coupler bay equipment interconnection is carried out using IPS Tube, however in Price Schedule IPS tube is specified for Busbar only and equipment interconnection is mentioned with ACSR conductor. We assume that as mentioned in Price Schedule, IPS Tube to be considered for Busbar and Equipment interconnection will be done using ACSR conductor. Please confirm.</p>	
47		Volume II(B)/Section 6	Drawings	<p>1. In section 6 - drawings, 3 nos. of drawings are provided for Section Layout for 132 kV Line bay. Please clarify</p>	Drawings are only for reference purpose.



Manjiv

				<p>which drawing should be considered.</p> <ul style="list-style-type: none"> ▶ Drawing No. SS-03 (Page No. 391 of 516 of 1644129835_VOLUME IIB) ▶ Drawing No. PC/01 (Page No. 393 of 516 of 1644129835_VOLUME IIB) ▶ Drawing No. PC/01 (Page No. 394 of 516 of 1644129835_VOLUME IIB) <p>2. In section 6 - drawings, 2 nos. of drawings are provided for Section Layout for 132 kV Transformer bay. Please clarify which drawing should be considered.</p> <ul style="list-style-type: none"> ▶ Drawing No. SS-05 (Page No. 392 of 516 of 1644129835_VOLUME IIB) ▶ Drawing No. PC/01 (Page No. 396 of 516 of 1644129835_VOLUME IIB) 	
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Ranjana

				<p>3. In section 6 - drawings, 2 nos. of drawings are provided for Section Layout for 132 kV Bus Coupler bay. Please clarify which drawing should be considered.</p> <p>▶ Drawing No. SS-04 (Page No. 397 of 516 of 1644129835_VOLUME IIB)</p> <p>▶ Drawing No. PC/01 (Page No. 393 of 516 of 1644129835_VOLUME IIB)</p>	
58		Volume II(A)/Chapter 9 and Volume III/Schedule No. 1.18	LV Power, Control and Lighting cables	<p>1. Chapter 9 of general specifications specify conductor of Power cables as Aluminium conductor, however in Price Schedule type of conductor is mentioned as copper (for lighting cables). We assume that for LV Power and Lighting cables should be Aluminium conductor type.</p> <p>2. Insulation for LV Power and Lighting</p>	Please refer amendment III



Ranjana

				cables is mentioned as PVC/XLPE. Please confirm type of insulation for LV Power and Lighting cables.	
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3. Mr. Ranjan Raj Gurung, Project Manager, thanked the prospective bidders for their active participation. The meeting was concluded at 2:00PM. The participants were informed that the Minutes of the Pre-bid Meeting will be posted on the NEA website and sent by email to potential bidders.



Ranjan