Invitation for Bids (IFB): PMD/EGMP/KRON/077/78- 01
Design, Supply, Installation and Commissioning of 132/33kV Air Insulated Substation(AIS) at Keraun, Morang District with Associated 33kV Subtransmission Line
Project: Electricity Grid Modernization Project

Clarification-5

S.No	Volume / Section	Clause No.	Text as per Bid document	Prebid Query	Reply from NEA
1	Volume II Chapter 18-Appendix-B Page 18.3.1-3 & BOQ			Chapter 18-Appendix-B: The No. of Fibres is 48. But in the BOQ, the No. of Fibres is 24. Kindly what is the No. of Fibres.	Quote as per BPS
2	Volume II Chapter 1- Project Specification Requirement Page 1-24 item 11.0 d) & BOQ			Chapter 1- Project Specification Requirement: One number PABX shall be supplied and commissioned at each new substations i.e. Keraun. But, in the BOQ, there is no PABX equipment. Kindly identify whether the PABX equipment need to be considered or not in the BOQ.	Shall not be paid separately. Bidder needs to consider the price of the same if required in the respective equipment price item
3	Others			In the BOQ, there is no Drop & Insert Multiplexer Equipment, we propose to add a Drop & Insert Multiplexer Equipment to communicate with LDC on IEC 60870-5-101 protocol	Shall not be paid separately. Bidder needs to consider the price of the same if required in the respective equipment price item
4	Volume IIA-Chapter 1: Project Specific requirement Page No.-36 Description of Items of BPS Given in short: 4. Hydrant System outside pump house as per technical specification: Hydrant system, complete U/G & O/G piping and accessories etc. outside the Pump House except Hydrants for Transformer and Reactors.			Whether Hydrant system is needed to be built in Substation. There is no such item in BPS. Please clarify.	Quote s per BPS
5	Volume IIA-Chapter 1: Project Specific requirement Page No.-36 Description of Items of BPS Given in short: 5. HVW spray system, Hydrant system as per specification for Transformer / Reactor : HVW spray system, Hydrant system and complete U/G & O/G piping and accessories etc. outside the pump house for Transformer / Reactor :			Whether high velocity water spray system is needed to be built in Substation. There is no such item in BPS. Please clarify.	Quote s per BPS
6	Volume IIA-Chapter 1: Project Specific requirement Page No.-36 Description of Items of BPS Given in short: 3. Pumping arrangement inside pump house as per technical specification: Pumping arrangement for HVW system & hydrant system complete with all piping, valves, fittings etc. inside pump house			Whether fire fighting pump house is needed to be built in Substation. There is no such item in BPS. Please clarify.	Quote s per BPS
7	Volume IIB-Chapter 14 – General Technical Requirement, Civil Works Page No.-34 11.1 GENERAL Work covered under this Clause of the Specification comprises the design,drawing and construction of foundations and other RCC constructions for switchyard tower structures...Fire fighting Pump house, fire fighting water tanks...				Quote s per BPS
8	Volume IIB-Chapter 14 – General Technical Requirement, Civil Works Page No.-34 11.1 GENERAL Work covered under this Clause of the Specification comprises the design,drawing and construction of foundations and other RCC constructions for switchyard tower structures...Fire fighting Pump			Whether fire fighting water water tank is needed to be built in Substation. There is no such item in BPS. Please clarify.	Quote s per BPS

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9	Volume-III, Section IV Schedule 1: 3 of 26 item 1.5 30 kV, 10 kA lightning arrestor including discharge counter for cable protection complete with all accessories as per specification no.39			Please confirm the amount of 30kV lightning arrestor.	As per BOQ/BPS
10	Volume-IIA, Chapter 1 1-14 3.1.6 33kV Indoor Switchgear for 2 no. Transformer Incomer bay 132/33kV, 7 nos. Feeders bays. The indoor Switchgear shall be kept in the control room Building			Please confirm the type of 33kV Switchgear:Indoor/Outdoor	33kV Switchgear:Outdoor
11	Volume-IIB, Drawings SS LATOUT diagram & 132kV Transformer bay diagram			The connection type of transformer 33kV side and 33kV CT is inconsistent. Please confirm the connection type of transformer 33kV side and 33kV CT:tubular busbar across the road or ACSR conductor	33kV Tubular busbar
12	Volume-IIB, Drawings All the Section diagrams			Please confirm the connection type of tubular busbar and Disconnecting switches:tubular busbar or ACSR conductor	33kV Tubular busbar
13	Volume-IIA, Chapter 6 1.1.3 AC Emergency Lighting. The lighting panels of this system will be connected to the Emergency lighting board which is fed from diesel generator during the emergency			The diesel generator is no included in BOQ Please confirm whether the diesel generator is needed. If need be,please provide the parameters	No generator is in scope
14	Volume-IIA, Chapter 1 4.2 e) Seismic Requirement for Substations: 0.5g			Please confirm whether the rail of transformer is needed under the Seismic intensity	As per Bid documents.
15	Volume-IIB, Chapter 23 TDS Page 350 ITEM No.1: 22.5MVA POWER TRANSFORMER 16.1 Positive Sequence Impedance at nameplate			Volume-IIA, Chapter08 Page263 6.1 Technical Particulars / Parameters of Transformers HV-LV Impedance at 75 Deg C >11% The Impedance is inconformity in these two sheets	As per IEC
16	Volume-IIA, Chapter 7 1.0 This specification is intended to cover outdoor type oil filled 315 kVA,			Volume-IIA, Chapter 7 10.0 Rated Capacity 300kVA Please confirm the capacity of LT transformer	LT transformer: 300kVA, 33/0.4kV
17	Volume-IIA, Chapter 12 8.2.5 The maximum size of each grid of grounding mat shall not exceed 4X4 meters			The size of grounding grid is probably not economical Please confirm the size of grounding grid:4X4or10X10 or else	As per Technical Specifications
18	Volume-III, Section IV Schedule 1: 5 of 26 item 1.10.2 1.10.3			There is no destination to calculate the amount. Please confirm the amount of cable	As per BPS/BoQ
19	Volume-IIB, Chapter 23 TDS 33kV CURRENT TRANSFORMER			Volume-IIA, Chapter 3 GTR Page 142 Technical particulars of 33 kV current transformer Volume-III, SCHEDULE 1 :3 of 26 1.4.4 The parameter of 36kV CT is inconformity in these sheets	As per Technical Data in Specification. Ratio and ratings of the CTs will be finalized during DDE

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S.No	Volume / Section	Clause No.	Text as per Bid document	Prebid Query	Reply from NEA
20	Volume-IIA Chapter 1 (I) KERAUN-RANGELI 33kV SUBTRANMISSION LINE,(II) KERAUN- BIRATCHOWK 33kV SUBTRANMISSION LINE			Volume-IIA Chapter 1 (I) KERAUN-RANGELI 33kV SUBTRANMISSION LINE,(II) KERAUN-BIRATCHOWK 33kV SUBTRANMISSION LINE, Please kindly provide the percentage of strain tower, how many large, middle and small angle tower needed? The quantity strain tower would serious impact on the weight of tower and also the neccesary hardware.	Suggest to bidders for site visit before bid submission
21	Volume-IIA Chapter 1 (I) KERAUN-RANGELI 33kV SUBTRANMISSION LINE,(II) KERAUN- BIRATCHOWK 33kV SUBTRANMISSION LINE			Volume-IIA For (II) KERAUN-BIRATCHOWK 33kV SUBTRANMISSION LINE, Pls kindly provide span distance between two lattice towers and the height of lattice tower. And pls kindly confirm whether the transmission would need to get across any river or not ?	Chisang River. The tentative span is maximum 200m
22	Volume-IIA Chapter 1 (I) KERAUN-RANGELI 33kV SUBTRANMISSION LINE,(II) KERAUN- BIRATCHOWK 33kV SUBTRANMISSION LINE			Pls kindly provide bidder the transmission line route alignment map for bidding document preparation and site survey.	It will be provide during Engineering Design. The successful bidders is required to do the necessary route survey and finalize the route before the construction of line and is a part of the Turnkey project.
23	Volume II 1597392825_vol-IIA , Page 14 Chapter 1 PROJECT SPECIFIC REQUIREMENT (PSR) FOR (I) KERAUN 132/33 kV SUBSTATION 3.0 DETAILED SCOPE OF WORK, Term 3.1.6 &BOQ			(I) KERAUN 132/33 kV SUBSTATION 3.0 DETAILED SCOPE OF WORK, Term 3.1.6 33kV Indoor Switchgear for 2 no. Transformer Incomer bay 132/33kV, 7 nos. Feeders bays. The indoor Switchgear shall be kept in the control room Building. But, in the BOQ, Item 1.2.4, Item 1.2.5 and Item 1.3.4, Item 1.3.5, Item 1.3.6. They all live-tank swithgear, not as above specified indoor switchgear	Plz refer earlier clarification.
24	Volume II Chapter 1- Project Specification Requirement (I) KERAUN 132/33 kV SUBSTATION			Pls kindly clarify in (I) KERAUN 132/33 kV SUBSTATION, which type of earthing line would be used for Line Terminal Tower ? And also rotation angle of the transmission line and span lenth condition ?	OPGE cable will be used for earthing line for tower. Details of 132kV Transmission Line will be provide during Engineering Design.

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25	Volume IIA & BOQ			The scope of work includes one no. 33kV Incoming bay extension work at Biratchowk Substation, as clarification specified, details information will be provided during engieering design, also the BOQ specified: item A3 Supply and Delivery for 33kV one bay extension work at Biratchowk 33kV Substation. Pls kindly provide the future bay single line drawings for bidder to quote accordingly. If could not provided, is it possible to confirm all the equipment quantity and equipment specificaiton needed for this future bay ?	Please qiotes as per BOQ for equipment quantity.
26	Volume II 1597392825_vol-IIA, Page 32 Chapter 1 PROJECT SPECIFIC REQUIREMENT (PSR) 15. SERVICE LEVEL AGREEMENT (SLA)			In this term specified: Support services (including Maintenance) for 3 years: The Scope of Work shall include the power infrastructure operation and maintenance support to be provided by the Contractor in respect of the system supplied under this project for a period of three years along with Supervision & Operation of the power distribution infrastructure along with communication network after the Operational Acceptance of the entire project, however during the execution of the infrastructure work it is expected that certain portion of the work if completed and put to service before the actual completion and commissioning of the entire project, then in that case also the support services including O&M shall be the responsibility of the contractor in accordance with this document, at no additional/ extra cost towards payment of support services (O&M) during this intervening period. Pls clarify how much working load needed for this part ?: "during the execution of the infrastructure work it is expected that certain portion of the work if completed and put to service before the actual completion and commissioning of the entire project," pls brief us on the situation.	Not Required and is Deleted
27	Volume II 1597392825_vol-IIA, Page 32 Chapter 1 PROJECT SPECIFIC REQUIREMENT (PSR) 15. SERVICE LEVEL AGREEMENT (SLA)			15.2 The bidder shall provide 24x7 support to NEA to comply with SLAs in case of any problem. Pls clarify whether 24 X 7 means 24 hours per day and 7 days per week ?	Not Required and is Deleted
28	Volume II 1597392825_vol-IIA, Page 32 Chapter 1 PROJECT SPECIFIC REQUIREMENT (PSR) 15. SERVICE LEVEL AGREEMENT (SLA)			Additions and deletions after the commissioning of the entire project in the power distribution network is a dynamic phenomenon and shall be catered by the contractor. The network analysis with respect to the additions/deletions in the power distribution network and designing of the network configuration shall also be carried out by the contractor. Pls clarify according to this term, whether any equipment that need to provide for Additions and deletions ?	Not Required and is Deleted

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29	Volume II 1597392825_vol-IIA, Page 32 Chapter 1 PROJECT SPECIFIC REQUIREMENT (PSR) 15. SERVICE LEVEL AGREEMENT (SLA)			vi. Any future planning, estimation, augmentation and execution work for strengthening of the existing system shall be done by the contractor during the O&M period. Any material required for the above work shall be provided by the contractor on the same rates as per the award of original project. If this term said, any future planing, augmentation and execution work for strengthenging of the exsisting system, durting the O&M period, and the contractor need to provide any material required for above work. As the future work scope is not clear here. the budget for the above service could not be calculated or even estimated and may be unlimited. During the O&M period, any augmentation could happen if owner needed. Pls clarify how much work for the contractor need to do in the future to let the bidder have a clue for what future scope.	Not Required and is Deleted
30	Volume II 1597392825_vol-IIA, Page 54 CHAPTER 2- GENERAL TECHNICAL REQUIREMENT 4.6.3.1 For 33 kV & 145 kV Equipments 1597392825_Vol-IIB, Page 365 Chapter 23 Technical Sheet ITEM No. 4b: 33kV DISCONNECTING SWITCH & EARTH SWITCH			CHAPTER 2- GENERAL TECHNICAL REQUIREMENT 4.0 SERVICES TO BE PERFORMED BY THE EQUIPMENT BEING FURNISHED 4.6.3.1 For 33 kV & 145 kV Equipments Rated insulation level: between terminals with isolator open ±200kVp & ±750 kVp respectively And we find in 1597392825_Vol-IIB, Page 365 Chapter 23 Technical Sheet ITEM No. 4b, withstand voltage(peak): 33kV DISCONNECTING SWITCH & EARTH SWITCH, 7.1 Impulse withstand voltage(peak), the same technical paramenter is 170 kV Pls clarify which one is right ?	As per Technical Specifications
31	Volume II 1597392825_vol-IIA, Page 137 Chapter 3 –General Technical Requirement, Instrument Transformer TABLE – II C, REQUIREMENTS FOR 145 kV CURRENT TRANSFORMERS (22.5 MVATransformer)			Volume II 1597392825_vol-IIA, Page 137 Chapter 3 – General Technical Requirement, Instrument Transformer TABLE – II C, REQUIREMENTS FOR 145 kV CURRENT TRANSFORMERS (22.5 MVATransformer) At this table, the ratio of BUS DIFF CHECK should be 1200-600/1, but ratio of TRANS. DIFF/LINE PROTN should be 100-200/ , all the vendors replied us that they cannot manufacture on Current Transformer that satisfy these two ratio, Pls clarify whether the requirement is right or wrong ?	It will be as per Specification but if it diffucult for manufacture, it will be change during details design.

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32	Volume III 1597392825_Vol-III_Keraun, Page 20, Part 2 Keraun-Rangeli 33kV Transmission Line, A1,Supply and Delivery of Works for 33kV Line (Steel tubular pole : equivalent strength or more than 540 SP-66 (322 Kg)-IS 2713 Part III), Steel Tubular Pole.(Fully Galvanized) 12 Meter, equivalent strength or more than 540 SP-66 (322 Kg)-IS 2713 Part III.			According to given BOQ, the unit of "Steel Tubular Pole.(Fully Galvanized) 12 Meter, equivalent strength or more than 540 SP-66 (322 Kg)-IS 2713 Part III" was No.s, During DDE and project execution period , when the quantity of this item need to be adjusted, the unit price should be according to actual weight of Poles, not only refer to the submitted unit price of quotation. or when the quantity need to be adjusted, the change of total price should according to the submitted unit price of Steel tubular pole, not consider the weight of pole ? Pls clarify whether our understanding is right or wrong	Any variation in quantity, the rate application shall be as per quoted in BPS.
33	Letter Ref. No:077/78, Ch:48, Clarification No.4, S.No.2, clause No.2.5 Subcontractor, PDF Page No. 48 of 219		Pre- bid Query: Type test on 132kV voltage class, three phase 63 MVA & 22.5 MVA transformer and Dyanamic Short Ciruit test on similar type of 132kV Vlotage level Transformer. Please clarify Dyanamic Short Ciruit test on any other rating of same voltage class is accepatble or not. Reply from NEA: Dyanamic Short Ciruit test on equal or	As mentioned in your reply that Dynamic short circuit test equal or higher rating of transformer of same voltage will be acceptable. In General, Indian Practice, 132/33 kV Voltage level maximum rating 63 MVA PTR is available but Dynamic Short circuit test not available. We request you for Dynamic short circuit test report either you accept lower rating (up to 50 MVA) transformer in same voltage or equal/higher rating in higher voltage level.	Please refer earlier clarification and Bid document.
34	Techanical Specification -At Page no. 314		SAS-BCU integration	Hardwired signal count & type of signal is not given which we need to consider for BCU connectivity.Please arrange the Hardwired signals type & count which we need to integrate with SAS-BCU.	The successful bidder is required to design & provide drawings for approval during DDE.
35				Bidder has to submit Type Test including Dynamic Short Circuit of 132kV voltage level transformer 63MVA or higher rating of transformer.	Confirm
36				If bidder doesn't have such type test need to submit undertaking letter to carry out such tesst as per detail mentioned in Subcontractor Qualification.	Confirm

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37				After award to contract and during manufacturing and before dispach, manufacture has to complete Routine test and Type test as listed in clause no. 5.2 of Power Transformer Technical Specification.	The manufacturer/ Contractor is required to perform Routine & Type Test as per Specification & during FAT.
38				At commissioning stage contractor have to carry out field test as per clause no. 5.3 of Power Transformer Technical Specification.	Confirm as per Specification.