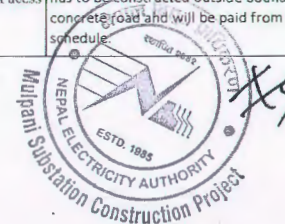


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

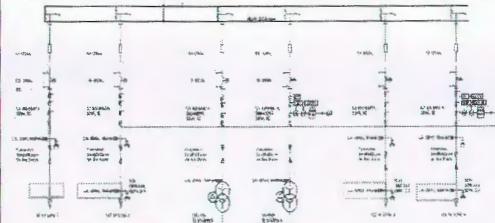
S.N.	Clause No.	Existing Clause	Description	NEA Reply
1	Vol I, Section 8 Special Conditions of Contract	22. Installation 22.1.1(a) Add the following The Contractor shall comply with (i) the measures and requirements relevant to the Contractor which are set forth in the <i>Resettlement and Indigenous Persons Plan ("RIPP")</i> attached hereto as Appendix [insert relevant Appendix], to the extent it concerns impacts on affected people during construction; and (ii) any corrective or preventive actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the resettlement plan. The Contractor shall allocate a budget for compliance with these measures, requirements, and actions. 35 Unforeseen Conditions Add following on the Sub-Clause 35.3: In addition to notice of any Unforeseeable physical conditions, the Contractor shall provide the Project Manager with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, installation or operation of the Facilities, which were not considered in the initial environmental examination, the environmental management plan or the resettlement plan attached hereto as Appendix [please insert] through Appendix [please insert]. Add following on the Sub-Clause 35.3: In addition to notice of any Unforeseeable physical conditions, the Contractor shall provide the Project Manager with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during construction, installation or operation of the Facilities, which were not considered in the initial environmental examination, the environmental management plan or the resettlement plan attached hereto as Appendix [please insert] through Appendix [please insert].	Please provide <i>Resettlement and Indigenous Persons Plan ("RIPP")</i> , initial environmental examination, environmental management plan, resettlement plan.	Please download the RIPP from ADB website. Link for RIPP : https://www.adb.org/sites/default/files/project-documents/54107/54107-001-remdp-en.pdf
2	Vol III	It reads that "11kV HT Cable (1CX800 Sqmm) Copper for 11k kV side of 132/11 kV Transformer along with accessories and termination equipments" in SECTION IV PRICE SCHEDULE of Vol III.	However it reads that "Cable shall have compacted circular Aluminium conductor, Conductor screened with extruded semi conducting compound, XLPE insulated, insulation screened with extruded semi conducting compound, armoured with non-magnetic material, followed by extruded PVC outer sheath (Type ST-2), with FR properties." in clause 2.3 Constructional Requirements of Chapter 9 - General Technical Requirement, Power and Control Cable. Please confirm the material of conductor, copper or Aluminium.	There are two types of cable listed in the Price Schedule for 11kV Voltage grade. 1CX800 Sqmm Copper cable is to be used for connection between transformer to the 11kV switchgear Panel whereas 4CX400 Sqmm Aluminium is cable is to be used for outgoing feeders and station transformer. Please refer BPS for clarity.
3	Vol II	Chapter 21 Technical Specification for 11kV VCB Panels	Please clarify the knee point voltage, field current and self-resistance of each ratio of the 2400-1200V1 current transformer in 11kV VCB switchgear	Shall be finalized during DOE
4		Site visit	The existing 132kV line runs across the substation area. This span shall be dismantled and the broken lines shall be respectively connected to the new terminal towers on both sides and to the substation. Please clarify whether or not such dismantling work is out of the work scope under this contract.	As the subject tender is a Turnkey Contract. All works for successful completion of the substation is in the scope. The interconnection and all the LIO arrangement is in the scope of the project. Bidders shall quote accordingly. No separate payments will be made for dismantling works.
5			According to the bidding documents, it is not clear whether slope roof should be made. According to the bidding documents attached drawings, the main building is slope roof. At present, our plan is to respond to the requirements of the attached drawing to make reinforced concrete flat roof board, on which steel roof frame is made, paved with colored steel tiles, forming slope roof. Please clarify whether slope roof is used or not. If slope roof is used, please clarify specific requirements.	The tender document provided is for reference only. The type of building and layout may vary during Detail engineering depending upon the soil condition. The architectural design to be followed is as per PSR i.e. shall be of Nepalese architecture.
6	Volume II/Chapter 14-General Technical Requirement, Civil Works	7.1 Road Outside NEA boundary (Access Road)	No access road (asphalt) is indicated in the BOQ. Please confirm whether or not the construction of access road (asphalt) is under work scope of this contract.	Construction site is directly connected to the main road. However if road has to be constructed outside boundary premises, type of road shall be concrete road and will be paid from the respective items indicated in price schedule.



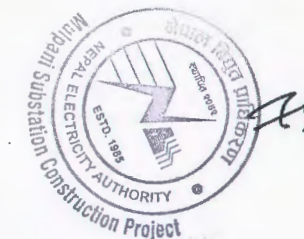
Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Clause No.	Existing Clause	Description	NEA Reply
7	Vol II	Power Transformer	Technical Specification and Technical Data Sheet indicate that Power Transformer is located outdoor. But the bid drawings indicate the indoor arrangement. Please clarify this.	The transformer shall be designed such as to install indoor, but the location of transformer might be outdoor which shall be finalized during DDE depending upon the physical and soil conditions.
8	Vol II	1. Chapter 20 Technical Specification for Transformers, Vol II. 2. Chapter 23 Technical Data Sheet, Vol II.	The Rated Capacity of 132kV Power Transformer is 31.5MVA for ONAN, 45 MVA for ONAF in "6.0 Technical Parameters" of Chapter 20 Technical Specification for Transformers, Vol II, Page 20-35. However, The Rated Capacity of 132kV Power Transformer is 45 MVA for ONAN in "Chapter 23 Technical Data Sheet" of Vol II, Page 23-2. 1. Please clarify whether the cooling method for the 132kV transformer is ONAN or ONAN/ONAF ? 2. Please clarify the capacity of 132kV transformer with ONAN cooling.	The transformer is ONAN / ONAF, 31.5/45MVA, 132/11kV . Find corrected Technical Data Sheet.
9	Vol II	1. Chapter 20 Technical Specification for Transformers, Vol II. 2. Chapter 23 Technical Data Sheet, Vol II.	The No. of steps of Tap Changer of 132kV Power Transformer is 16 steps in "6.0 Technical Parameters" of Chapter 20 Technical Specification for Transformers, Vol II, Page 20-36. However, No. of steps of Tap Changer is 17 steps in "Chapter 23 Technical Data Sheet" of Vol II, Page 23-3. Please clarify whether the No. of steps of Tap Changer is 16 steps or 17 steps?	The step requirement is +/- 10%, with step of 1.25%. Shall be 16 steps, 17 taps
10	Vol II	1. Chapter 21 Technical Specification for 11kV VCB Panels 2. Chapter 23 Technical Data Sheet, Vol II.	The the Duty cycle of Operating Mechanism of 11kV VCB Panels is 0-0.3 Sec-CO-3 Min-CO in "9.00 SYSTEM PARAMETERS" of Chapter 21 Technical Specification for 11kV VCB Panels, Vol II, Page 21-17. However, the Duty cycle of Operating Mechanism is CO-15sec -CO in "Chapter 23 Technical Data Sheet" of Vol II, Page 23-17. Please clarify which one is correct?	The duty cycle is 0-0.3 Sec-CO-3 Min-CO .
11	Vol II	Chapter 18 - General Technical Requirement - OPGW Cable	The Price schedule does not include the item OPGW, please confirm if the OPGW is in the scope of work? If yes, please provide its quantity and add the price item for OPGW in the price schedule.	OPGW and accessories, OFC with accessories as required for successful completion of work is in the scope of the contract. You are required to quote it accordingly in the respective items under vendor accessed quantity. A, Erection Hardware and Item I, Substation Automation. No separate payment will be made.
12	Vol II	Chapter 16 PLCC	The price schedule does not include item PLCC, please help to clarify whether we should consider PLCC in our design & quotation?	PLCC is not in the scope.
13	Vol.III	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad. Item D 145kV Equipment (AIS) Sub-item 1.0, 120kV Surge Arrestors (1-phase), 6 nos.	 <p>According to the single line diagram provided in the bidding documents, we think that the number of lightning arrestors should be 12, please confirm?</p>	Please quote for the quantity as provided in the BoQ.

D	145kV EQUIPMENT (AIS)		
1.0	120 kV Surge Arrestors (1-Phase)	Nos.	6

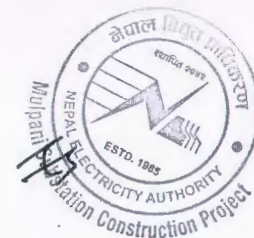


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Clause No.	Existing Clause	Description	NEA Reply																
14	Vol II & Vol III	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad <table><tr><td>E</td><td>11 KV EQUIPMENT</td><td></td><td></td></tr><tr><td>1.0</td><td>11 kV Isolator (3-phase)-HDB</td><td></td><td></td></tr><tr><td>1.1.1</td><td>400A, 25kA for 3 sec. Isolator without Eis (Beam Mounted)</td><td>Set</td><td>8</td></tr><tr><td>2.0</td><td>9 kV Surge Arrester (1 ph.)</td><td>Nos</td><td>15</td></tr></table>	E	11 KV EQUIPMENT			1.0	11 kV Isolator (3-phase)-HDB			1.1.1	400A, 25kA for 3 sec. Isolator without Eis (Beam Mounted)	Set	8	2.0	9 kV Surge Arrester (1 ph.)	Nos	15		
E	11 KV EQUIPMENT																			
1.0	11 kV Isolator (3-phase)-HDB																			
1.1.1	400A, 25kA for 3 sec. Isolator without Eis (Beam Mounted)	Set	8																	
2.0	9 kV Surge Arrester (1 ph.)	Nos	15																	
15		Chapter 1 – Project Specific Requirement (PSR) 3. SCOPE OF WORK 3. SCOPE OF WORK A. 132/11 kV Mulpani Substation with the following bays (132 kV GIS and 11 kV indoor) as per Single Line Diagram A as indicated in BPS: • 2 nos. 132 kV bays for 1 x 31.5/45 MVA, 132/11 kV, 3 Phase Transformers • 4 nos. 132kV bays for termination of 132kV Transmission line • 01 no. 132kV Bus Coupler bay. • 14V indoor Switchyard Panels for 8 nos line bays, 2 nos Transformer bays, 2 nos LT Transformer bays and 1 Bus section Bay • Other associated equipments	According to the SCOPE OF WORK in the bidding documents, we think that the number of 11 kV Isolator (3-phase)-HDB should be 8, and the number of 9 kV Surge Arrester (1 ph.) should be 24, please confirm?	Please quote for the quantity as provided in the BoQ.																
16	Vol II	CHAPTER 15. 16. SYNCHRONISING EQUIPMENT	Whether the synchronization function of bay control device can be accepted without separate synchronization equipment.	The inbuilt synchronising functions of IED, BCUs will be accepted.																
17	Vol II	CHAPTER 15. 26. BUS BAR PROTECTION	Can centralized busbar differential protection be accepted	Please provide as per the TS.																
18	Vol II	CHAPTER 17 8.0 POWER SUPPLY	Servers, gateways station HMI disturbance recorder evaluation unit and its peripheral devices e.g. printer etc. In case of accident, the DC power supply and UPS system of the whole station will supply power for the above loads. 2KVA inverter is not set separately.	Please provide as per the TS.																
19	Vol II	CHAPTER 5 Battery Charger	The battery charger will adopt high-frequency switching charging module	Please provide as per the TS.																
20	Vol II	132kV line protection configuration	Please provide the configuration of protection on the opposite side of 132kV line and the length of the line	Please provide as per the TS.																
21	Vol II	Voltage paralleling	Is there a demand for voltage paralleling in Nepal	Please provide as per the TS.																
22	Vol II		It is stated in the bidding document that the site has been surveyed. Can the geological survey report be provided?	Details will be provided to successful bidder. The excerpt of soil investigation report is attached.																
23	Vol II		The bidding document gives the wind speed of 47m/s. Please make clear whether the wind speed is 3s gust or average wind speed within 10min and the wind return period. If it is 3s gust, what is the value of the coefficient converted from 3S gust to 10min average wind?	Please provide as per the TS and follow relevant international standard.																
24	Vol II		The civil works part of the bidding document requires BS standard for design, but M25 is required for concrete material and Fe 500 is required for steel reinforcement. The material does not belong to the BS standard. What standards should be followed?	Please provide as per the TS and follow relevant international standard.																



Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Clause No.	Existing Clause	Description	NEA Reply
25	Vol II	Chapter 10 - General Technical Requirement, Air conditioning, clause 2 2 AIR CONDITIONING SYSTEM FOR CONTROL ROOM BUILDING & relay room. Air conditioning requirement of control room building shall be met using High wall type split AC units of 2TR.	High wall type split AC units do you mean wall-mounted air conditioning units?	Confirmed.
26	Vol II	Chapter 10 - General Technical Requirement, Air conditioning, clause 3.4.5 3 AIR CONDITIONING SYSTEM FOR SWITCHYARD PANEL ROOMS. 3.4.5 The AC units shall be mounted on the wall and the maintenance of unit shall be possible from outside the Switchyard panel room.	Is the Packaged AC units installed on the wall or the roof hoisting? How to realize outdoor maintenance of indoor machine?	Please provide as per the TS.
27	Vol II	CHAPTER 1. Project Specific Requirement (PSR) Clause 1 1. GENERAL Nepal Electricity Authority is establishing new 132/11kV Gas Insulated substation at Mulpani, Kathmandu. It will be connected to Chapali - Bhaktapur 132kV DC line in LILO.	Please clarify whether Chapali-Bhaktapur 132 kV line is a DC line? Is it single or double? What type of wire is it?	Chapali - Bhaktapur 132 Line is Double Circuit Line. Conductor is ACSR 'Bear' Conductor
28	Vol II		Please confirm whether the two line towers in the substation are included in the scope of this project?	The new towers for LILO arrangement is included in the scope of the project and quantity is provided as Steel Structures in the VOL II Price Schedule



Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Existing Cl: Description	NEA Reply
29	<p>Section 22 1.132kV High voltage cable part :</p> <p>According to SECTION 22: It is mentioned in article 1.2 of EHV XLPE power cable that corrugated aluminum sheath is aluminum extrusion process, but below No. 13 in the parameter table requires welding process.</p> <p>1.2 The EHV grade cable shall be single core, unarmoured, stranded, compacted Aluminium/Copper (as specified in BPS) conductor, core screening by a layer of semiconducting tape followed by a layer of semiconducting compound, cross linked polyethylene (XLPE) dry cured insulation, insulation screening with semiconducting compound extruded directly over the insulation, longitudinal sealing by a layer of nonwoven tape with water swellable absorbent over insulation screen, followed by radial sealing (Metal sheath of extruded corrugated aluminium), metallic screening by concentric layer of plain copper wire (if required) to meet short time current requirement, followed by an open helix of copper & overall HDPE sheathed & graphite coated and conforming to the technical particulars of specification. Bidder may offer necessary layers such as separation tape, binder tapes etc additionally as per their manufacturing practices for meeting required performance of the offered cable.</p>	<p>Please provide aluminum sheath with aluminum extrusion process. But the cable shall meet all necessary parameters for successful operation without any problems during operation.</p>

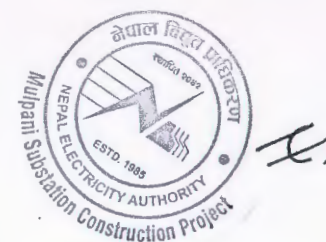


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

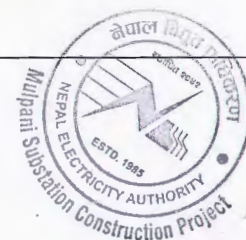
ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Clause No.	Existing Clause	Proposed Clause	NEA Reply
30	ITB 2.4	Participation in at least 2 (two) Contracts that have been successfully or substantially completed within the last 10 (Ten) years and that are similar to the proposed Contract, where the value of the Bidder's participation under each Contract exceeds US\$ 8.37 Million. The similarity of the Bidder's participation shall be based on Design, Supply, Installation, Testing and Commissioning of 132 kV or higher voltage GIS Substations. Out of the above two Contracts, one should have been executed outside the Bidder's home country.	Participation in at least 2 (two) Contracts that have been successfully or substantially completed within the last 10 (Ten) years and that are similar to the proposed Contract, where the value of the Bidder's participation under each Contract exceeds US\$ 8.37 Million. The similarity of the Bidder's participation shall be based on Design, Supply, Installation, Testing and Commissioning of 132 kV or higher voltage GIS/AIS Substations (One partner should have GIS experience and another partner having GIS/AIS experience). Out of the above two Contracts, one either GIS/AIS should have been executed outside the Bidder's home country. Justification: since, one partner has already executed the GIS project, they have requisite experience to execute the floated tender successfully.	Partners should meet compliance requirements as indicated in Section 3, 2.4 Bidder's Experience. The requirements for all partners combined and each partner has been stated clearly. The clause referred is not changed.



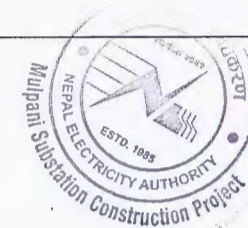
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
31	Chapter 1-Project Specific requirements/Clause No. 4.1(A)	b) Three nos. 1-phase inductive potential transformers, complete with isolator switch suitable for double bus arrangement.	We understood that 145kV GIS is completely three phase encapsulated type, therefore three phase encapsulated type potential transformers shall be provided at each location in the substation (wherever required). Please confirm.	The 1-phase or three phase IPT shall be provided as per the type of GIS proposed in the TS.
32	Chapter 1-Project Specific requirements/Clause No. 4.1(A)	f) End Piece with the test link for Future extension of Bus bar module . As 145kV GIS is likely to be extended in future, the contractor shall make available all details such as cross section, gas pressure etc. required to design adopted in future for extension of GIS, during detailed engineering stage.	We understood that the location of isolating link required at single end of substation. Please confirm.	Future Bay Extension Module shall be provided at both end such as to facilitate expansion.
33	Chapter 1-Project Specific requirements/Clause No. 4.1(B)	b) Three Nos. 1-phase, 5-core, multi ratio, current transformers duly distributed on both sides of Circuit Breaker.	We understood that 145kV GIS is completely three phase encapsulated type, therefore three phase encapsulated type current transformers shall be provided at each location in the substation (wherever required). Please confirm.	The 1-phase or three phase CT shall be provided as per the type of GIS proposed in compliance with the TS.
34	Chapter 1-Project Specific requirements/Clause No. 4.1(B)	(d) Three (3) numbers of 1-phase potential transformers.	We understood that 145kV GIS is completely three phase encapsulated type, therefore three phase encapsulated type current transformers shall be provided at each location in the substation (wherever required). Please confirm.	The 1-phase or three phase PT shall be provided as per the type of GIS proposed in compliance with the TS.
35	Chapter 1-Project Specific requirements/Clause No. 4.1(B)	(g) Three (3) numbers of 1-phase Lightning arrestors.	We understood that 145kV GIS is completely three phase encapsulated type, therefore three phase encapsulated type surge arresters shall be provided at each location in the substation (wherever required). Please confirm.	The 1-phase or three phase LA shall be provided as per the type of GIS proposed in compliance with the TS.
36	Chapter 2-General Technical requirements/Clause No. 9.2	The reports for all type tests as per technical specification shall be furnished by the Contractor alongwith equipment / material drawings. The type tests conducted earlier should have either been conducted in accredited laboratory (accredited based on IEC Guide 25 / 17025 or EN 45001 by the national accreditation body of the country where laboratory is located) or witnessed by Utility or representative of accredited test lab or reputed consultant.	We understand from the clause that the type test conducted in any of the IEC accredited laboratories performed within the 10 year prior to the original schedule date of bid opening would be considered by NEA. Please confirm.	Confirmed. However for Power Transformer and 132 kV GIS, and other equipment listed in the Section 3, EQC, 2.5 the Type test requirement as stipulated in Section 3, 2.5 Subcontractors shall be complied.



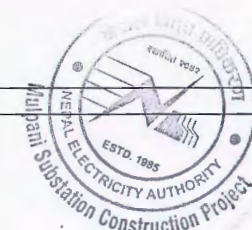
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply							
38	Chapter 19-Technical Specifications GIS/General Design and Safety Requirement/Clause No. 3.11	Due to safety requirement for working on this pressurized equipment, whenever the pressure of the adjacent gas compartment is reduced during maintenance, this compartment shall be designed so that it shall remain in service to perform its intended duty. The gas tight barriers shall be clearly marked on the outside of the enclosures.	We understood that for 145 kV GIS safety requirements,if the gas pressure of a compartment is reduced,the same part cannot be kept in service as the gas density in the stated compartment shall not be sufficient to withstand the electrical stress. Please confirm.	Please provide as per TS.							
39	Chapter 19-Technical Specifications GIS/General Design and Safety Requirement/Clause No. 3.12	The material and thickness of the enclosures shall be such as to withstand an internal flash over without burn through for a period of 300 ms at rated short time withstand current. The material shall be such that it has no effect of environment as well as from the by-products of SF6 breakdown under arcing condition.	<p>The burn through shall be as per IEC 62271-203. Table enclosed for reference.</p> <table><tr><td rowspan="2">≥40 kA r.m.s.</td><td>1</td><td>0.1 s</td><td>No external effect other than the operation of outable pressure relief devices</td></tr><tr><td>2</td><td>≤0.3 s</td><td>No fragmentation (burn-through is acceptable)</td></tr></table> <p>Please Confirm</p>	≥40 kA r.m.s.	1	0.1 s	No external effect other than the operation of outable pressure relief devices	2	≤0.3 s	No fragmentation (burn-through is acceptable)	Please provide as per TS.
≥40 kA r.m.s.	1	0.1 s	No external effect other than the operation of outable pressure relief devices								
	2	≤0.3 s	No fragmentation (burn-through is acceptable)								
40	Chapter 19-Technical Specifications GIS/General Design and Safety Requirement/Clause No. 3.20	The switchgear shall be of the free standing, self-supporting with easy accessibility to all the parts during installation & maintenance with all high-voltage equipment installed inside gas-insulated metallic and earthed enclosures,suitably sub-divided into individual arc and gas-proof compartments preferably for: 1) Bus bars 2) Intermediate compartment 3) Circuit breakers 4) Line Disconnectors 5) Voltage Transformers 6) Gas Insulated bus duct section between GIS and XLPE cable/Overhead Conductor. 7) Gas Insulated bus section between GIS & Oil filled Transformer (if applicable)	We understand that the gas compartments shall be as per manufacturer's standard and design. Please confirm.	Please provide as per TS and the attached annexure.							



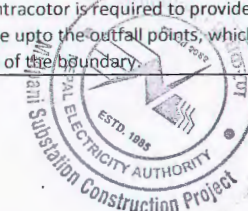
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
41	Chapter 19-Technical Specifications GIS/General Design and Safety Requirement/Clause No. 3.26	The GIS shall be designed, so as to take care of the VFT over voltages generated as a result of pre-strikes and re-strikes during isolator operation. Maximum VFT over voltages peak shall not be higher than rated lightning impulse withstand voltage (LIWV) of the equipment. Necessary measures shall be under taken by GIS manufacture to restrict maximum VFT over voltages lower than the LIWV. Manufacturer shall submit the study report of VFTO generated for GIS installation.	As per IEC 62271-203, VFTO studies are not applicable for 145 kV voltage levels. Therefore these studies are not required and shall be excluded from OEM scope. Please Confirm	Shall be as per the TS and relevant IEC
42	Chapter 19-Technical Specifications GIS/General Design and Safety Requirement/Clause No. 3.32	The ladders and walkways shall be provided wherever necessary for access to the equipment.	We envisage provision of Mobile Ladders for access to operating mechanisms and no walkways are not required for proposed Layout. Please confirm	Shall be as per the TS. During DDE
43	Chapter 19-Technical Specifications GIS/General Design and Safety Requirement/Clause No. 3.38	Temperature rise of all current carrying parts and enclosures shall be limited to the values stipulated in IEC-62271-1, under rated current and the climatic conditions as specified. The temperature rise for accessible enclosure shall not exceed 20 degree C above the ambient temperature of 50 degree C.	As per IEC -62271-1, The temperature rise for accessible enclosure shall not exceed 20 degree C above the ambient temperature of 50 degree C. In the case of enclosures, which are accessible but need not be touched during normal operation, the temperature rise limit may be permitted up to 30 degree C above the ambient of 50 degree C. The offered GIS is type tested to meet this IEC standard. Please Confirm.	Shall be as per the TS and relevant IEC
44	Chapter 19-Technical Specifications GIS/Circuit Breakers_Constructional Features /Clause No. 4.5.6	The contractor shall supply three set of transducer for each substation covered under the scope.	We understood that for 145 kV GIS Circuit Breakers, Set of transducers are not required/ not applicable. Hence, supply of these transducers shall be excluded from OEM scope of supply. Please Confirm	Shall be as per the TS. During DDE
45	Chapter 19-Technical Specifications GIS/Disconnectors_Construction & Design/Clause No. 5.2.12	The disconnectors and safety grounding switches shall have a mechanical and electrical inter-locks to prevent closing of the grounding switches when isolator switches are in the closed position and to prevent closing of the disconnectors when the grounding switch is in the closed position. Integrally mounted lock when provided shall be equipped with a unique key for such three phase group. Master key is not permitted.	We understood that for 145 kV GIS Disconnectors, When there is a three position switch (a module having both the switches in it-disconnect switch and earth switch) a mechanical interlock shall be provided, but when the mentioned switches are different modules, practically it can not be made possible to introduce the stated mechanical interlock. The product types that we are considering for the project under discussion have been supplied to and installed at numerous substations in India and abroad. Please accept the stated design philosophy.	Shall be as per the TS.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
46	Chapter 19-Technical Specifications GIS/Transportation of Equipment of site/Clause No. 21	All transport packages containing critical units viz Circuit breakers and Voltage transformers shall be provided with sufficient number of electronic impact recorders (on returnable basis) during transportation to measure the magnitude and duration of the impact in all three directions. The acceptance criteria and limits of impact in all three directions which can be withstood by the equipment during transportation and handling shall be submitted by the contractor during detailed engineering. The recording shall commence in the factory and must continue till the units reach site. The data of electronic impact recorders shall be downloaded at site and a soft copy of it shall be handed over to Engineer – in –charge. Further, contractor shall communicate the interpretation of the data within three weeks.	We understood that for 145 kV GIS, Shock indicators shall be provided only for VTs, sensitive equipment. No electronic impact recorders are necessary for Circuit Breaker. Please confirm.	Shall be as per the TS.
47	Chapter 19-Technical Specifications GIS/Technical Parameters for Circuit Breaker/Annexure_01/Point No.16_Reclosing	For 132 kV Circuit Breaker, Reclosing required is Single phase & Three phase auto reclosing.	We understood that 145kV GIS CB is suitable only for 3-ph auto-reclosing. Please confirm	The reclosure shall be 1 phase or three phase as per the type of CB offered.
48	Vol 1 / Section 03_ / 2.5 Subcontractors/ 2_132 kV GIS	Must have successfully carried out the complete type test as per IEC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on 220 kV voltage class GIS Switchgears (Circuit Breaker, Disconnectors, Grounding Switches, Instrument Transformers, SF6/Air & Oil Bushing etc.;). However if the manufacturer has not conducted complete type tests in Short-Circuit Testing Liaison (STL) - Accredited Laboratory over last seven (7) years as on the date of bid submission, bidder has to submit undertaking letter along with bid to carry out the complete type test in Short-Circuit Testing Liaison(STL) - Accredited Laboratory from offered Manufacturer without any extra cost to Employer	The STL is concerned with high voltage transmissions and distribution power equipment (i.e above 1KV A.C and 1.2 KV DC). Their main interest is to guide the member laboratories as to how the applicable IEC standards in relation to short circuit tests and dielectric tests are to be interpreted. Therefore it is required to carry out the above mentioned tests at a laboratory that is a member of the said fraternity. Now, carrying out other tests such as pressure tests on enclosures, endurance tests on different drives etc. at an STL member Lab shall not give any additional weightage to the tests or the decisions that the lab will make as these tests are falling beyond their main objectives. We request your good office to consider the explanation above and render your decision, Please.	Please follow the requirement stipulated in the section3, EQC, Clause 2.5

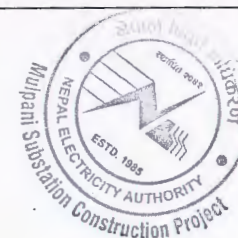


S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
Civil Queires				
49	Chapter 1-Project Specific requirements/Clause No. 2-1.2	The new substation at Changunarayan is to be constructed along the existing 132kV DC transmission Lines which is under operation which passes through the proposed site.	We understand that "Changunarayan" is a typographical error. No work related to changunarayan station is under present scope. Please confirm.	Confirmed. However Changunarayan is upcoming substation in Bhaktapur-Chapali Line Section. Necessary works required for establishment of communication link of Mulpani Substation to MCC and LDC is in the scope of the work.
50	Chapter 1-Project Specific requirements/Clause No. 4.1.27	The soil investigation report indicates liquification upto 11.5 m and the field has low bearing capacity. Therefore, the contractor is required to design and implement the works for soil bearing capacity improvement.	We understand that the soil indication report is available with the customer (NEA). Kindly provide the soil investigation report available to ascertain the type and depth of foundation.	Detail soil investigation is in the scope of contract. The type and depth of foundation shall be based on the soil investigation works. Provided liquification and bearing capacity is for the reference purpose only.
51	Chapter 1-Project Specific requirements/Clause No. 4.1.27-h) & i)	h) Cable trenches outside control room building and GIS hall building along with covers and sump pits. i) Cable trench crossings with roads, rails tracks, drain etc.	As there is no line item for cable trench & cable trench crossings in price schedule, please clarify under which item, payment for cable trench shall be made to bidder.	The payment will be made through the items available for RCC, PCC, Reinforcement bars etc.
52	Chapter 1-Project Specific requirements/Clause No. 4.1.27-k)	Strengthening of approach road: Strengthening / repair of approach road/ bridges, if required during transportation of equipment and materials, shall be included in respective item of price schedule. Employer will not be liable for any additional payment for such work.	a) We understand that approach road till the substation entry is already present. No approach road is required to built for proposed station. Please confirm. B) Further, no bridge strengthening is under present scope of works. Please confirm.	Approach road if required, shall be RCC type with design as per the internal road. Strengthening/repair of approach road/bridges as specified is for the transportation of equipment/ materials upto the site.
53	Chapter 1-Project Specific requirements/Clause No. 4.1.27-k)	Strengthening of approach road: Strengthening / repair of approach road/ bridges, if required during transportation of equipment and materials, shall be included in respective item of price schedule. Employer will not be liable for any additional payment for such work.	a) If same is under present scope, then same shall be measured under respective items of Price schedule i.e. in item no. 12 and items nos 1-8. Please confirm. B) Please specify the width and length of approach road required.	Strengthening/repair of approach road/bridges as specified is for the transportation of equipment/ materials upto the site. No extra payment for strengthening/repair will be given.
54	Chapter 1-Project Specific requirements/Clause No. 4.1.27-k)	Strengthening of approach road: Strengthening / repair of approach road/ bridges, if required during transportation of equipment and materials, shall be included in respective item of price schedule. Employer will not be liable for any additional payment for such work.	We understand that required permissions for carrying out approach road works shall be provided by NEA only. Please confirm.	NEA shall recommend to the concerned offices for permissions (if required).
55	Chapter 1-Project Specific requirements/Clause No. 4.1.27-n)	Drain and culverts, Drain Layout shall be developed by the contractor based on various type of drains.	a) We request customer to share the drain layout. B) We understand that outfall point for drain shall be within plot premises or near to boundary. Please confirm.	refer to 'Chap 6, Clause 6: Site Drainage' of GTR. The contractor is required to provide necessary drainage upto the outfall points, which may lie outside of the boundary.

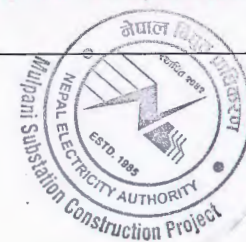


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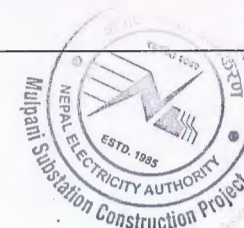
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
56	Chapter 1-Project Specific requirements/Clause No. 4.1.27-o)	Boundary wall along substation property line and main gate	We understand that issues if any like Right of way during construction of boundary wall along property line will be cleared by NEA only. Please confirm.	Confirmed.
57	Chapter 1-Project Specific requirements/Clause No. 4.1.27-p)	GIS Buildings including control room cum administrative building. The GIS hall shall be suitable for mounting of EOT crane. The control room building shall be RCC structure following Nepalese architectural design and GIS Hall shall be Pre-Engineered steel structure as per Section "Civil".	As per Civil Price schedule - Item No. - 11.1 - GIS building shall be RCC building and not mentioned as PEB building. Please confirm if GIS building shall be RCC or PEB type.	GIS building shall be of RCC.
58		GIS Buildings including control room cum administrative building. The GIS hall shall be suitable for mounting of EOT crane. The control room building shall be RCC structure following Nepalese architectural design and GIS Hall shall be Pre-Engineered steel structure as per Section "Civil".	We understand that Nepalese architectural design shall be provided only to main Control room building. This shall not be applicable for Security room, fire fighting building etc. Please confirm.	Confirmed.
59	Chapter 1-Project Specific requirements/Clause No. 4.1.27-q) & r)	s) All civil works including foundations associated with erection of SF6 gas insulated metal enclosed switchgear along with its SF6 ducts inside the building. t) Foundations for SF6 duct supporting structure (outside building), SF6/Air bushing	As there is no line item for bus duct and bushing foundations in price schedule, please clarify under which item, payment shall be made to bidder.	SF6 bus duct as mentioned is for Transformer connections to the respective transformer GIS bay. The cost are included in the respective line items.
60	Chapter 1-Project Specific requirements/Clause No. 4.1.27-w)	Soil investigation has been carried out. NEA will provide Geotechnical Investigation Report of the substation area for reference.	Request customer to share soil investigation report available to ascertain the type of foundations.	Refer to the clarification provided above.
61	Chapter 1-Project Specific requirements/Clause No. 4.1.27-x)	Contouring and site leveling works: The finished ground level has been finalized and FGL of switchyard area has been achieved. However, the Contractor may have to carry out minor countouring and site leveling works (if required) to complete the scope of works. The cost for such works shall be included in bid prices elsewhere in price schedule and no separate payment will be made for such works. Construction of random rubble stone masonry wall and gabion wall.	a) Request customer to share contour map along with proposed and finalized FGL. B) As FGL has already been achieved, request customer to provide us details of cutting/filling which was required to achieve the FGL to ascertain the depth of cut/fill from Natural ground level.	a. The detail survey contour will be shared to the successful bidder. b. Please visit the site for necessary data, the FGL may vary after the confirmation survey is carried out, which is in the scope of the contractor.



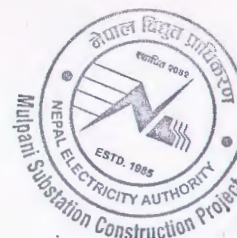
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
62	Chapter 1-Project Specific requirements/Clause No. 4.1.27-x)	Contouring and site leveling works: The finished ground level has been finalized and FGL of switchyard area has been achieved. However, the Contractor may have to carry out minor countouring and site leveling works (if required) to complete the scope of works. The cost for such works shall be included in bid prices elsewhere in price schedule and no separate payment will be made for such works.Construction of random rubble stone masonry wall and gabion wall.	As land development activity has already been completed for proposed plot, we understand that compaction of same (in case filling is done),quality requirements like 95% proctor density etc. has already been met and is not responsibility of bidder. Any work related to same is not in our scope and in case required, implication of same shall be provided to bidder. Please confirm.	Site leveling has to be reconfirmed, which is in the scope of the contractor.
63	Chapter 1-Project Specific requirements/Clause No. 4.1.27-x)	Contouring and site leveling works: The finished ground level has been finalized and FGL of switchyard area has been achieved. However, the Contractor may have to carry out minor countouring and site leveling works (if required) to complete the scope of works. The cost for such works shall be included in bid prices elsewhere in price schedule and no separate payment will be made for such works.Construction of random rubble stone masonry wall and gabion wall.	a) Request NEA to specifically mention where gabion wall is required in the layout and reason for considering the same. B) We understand that payment for gabion wall required in station and if required in approach road shall be made under item no. 29 of Price schedule and for random rubble stone masonry wall/RCC wall in station and if required in approach road shall be provided under item no. 25.1 & 25.2 of civil price schedule.Please confirm.	Requirement of gabion wall shall be finalized during DDE. The items as applicable will be paid through the respective line items mentioned in the BoQ.
64	Chapter 1-Project Specific requirements/Clause No. 4.1.27-z)	Dismantling of existing structure, foundation, equipment etc., if required, shall be included with the bid prices elsewhere in the price schedule.	a) Request Customer to specify the details of dismantling works under present scope. b) As there is no line item for dismantling in civil price schedule,please confirm where same shall be paid.	The present land is a green field, so major dismantling work may not be required. However, all desmatling work, site leveling etc required for successful completion of the work shall be in the scope of the contractor. No extra payment shall be made.
65	Chapter 1-Project Specific requirements/Clause No. 4.1.27-aa)	The technical specification for external finishing of control room building and roofing has been included in Annexure.... Based on the specification included in Chapter 14 and Annexure... , external finishing shall be decided during detail engineering design.	Annexure No. is missing in said clause.Request customer to specify the same.	Please refer Annexure B1, Chapter 14, Additional Spec
66	Chapter 1-Project Specific requirements/Clause No. 4.2.27-cc)	Any other item/design/drawing for completion of scope of works.	We understand that our quote shall be as per NEA price schedule only.Any item extra other than those mentioned in the price schedule shall be considered as extra item and paid to us seperately.Please confirm.	Confirm other than any minor items required.



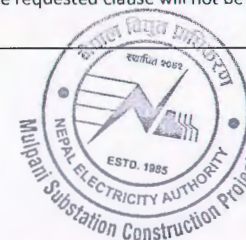
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
67	Chapter 1-Project Specific requirements/Clause No. 13-t)	The conditions of roads, capacity of bridges, culverts etc. in the route shall also be assessed by the bidders. The scope of any necessary modification/ extension/ improvement to existing road, bridges, culverts etc. shall be included in the scope of the bidder, without any extra cost to NEA (If not mentioned specifically in the BPS).	We understand that in case of any strengthening required to existing road, bridges, culverts etc. , same shall be paid under respective items of civil price schedule only. Please confirm.	Strengthening/repair of approach road/bridges etc as specified is for the transportation of equipment/ materials upto the site. No extra payment will be provided for strengthening/repair works.
68	Chapter 14- General Technical requirements- Civil works/Clause no. 7.1	Road Outside NEA boundary (Access Road) Payment for the Contract item "Asphalt Road" will be made at the unit price per sq. m. of finish surface bid, therefore in the Price Schedule, such unit price shall include full compensations for all costs incurred in grading, furnishing all materials, equipment and labor and all other operation	In price schedule- there is only one item for road i.e. Item No. 12- Concrete roads- 3.75m wide. No item for asphalt or other type of roads is there. We understand that in case approach road is under present scope, same shall be 3.75m wide RCC road and will be paid under item no. 12 of civil price schedule. Please confirm.	Confirmed.
69	Tender Drawings/ Proposed Layout	Alternative Proposed Layout	8.75m wide road has been shown in this Layout and only one item for 3.75m wide road is there in Price schedule. Please clarify if 8.75m wide road will be required or not. If yes, request customer to provide line item for same in Price schedule.	As the line item is payable in sq.m. any change in width, as per the attached drawing, will be paid accordingly.
70	Tender Drawings/ Proposed Layout	Proposed Layout	Request customer to provide us dimensions and total area of plot.	Total area of plot is around 6000 Sqm.
71	Tender Drawings/ Proposed Layout	Proposed Layout	We understand that our scope of work is limited to present scope of work highlighted in this layout only. No work in future area including land development, stone spreading etc. is under present scope. Please confirm.	The provided proposed layout is only for reference purpose only. All the work required as specified but not limited in Chapter 1 -PSR is in the scope of the contract
72	Tender Drawings/ Proposed Layout	Control room Building- Ground floor plan and first floor plan	In tender drawings, GIS rooms have been shown on ground floor and control room has been shown on first floor i.e. above GIS buildings. In price schedule - Item no. 11, Control room building, 132kV GIS building and 11kV building has been provided separately. Please confirm us mode of measurement of plinth area.	The mode of payment shall be sq.m basis.



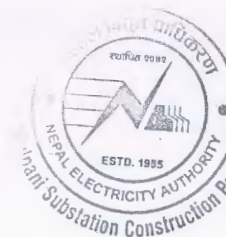
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
73	Price Schedule/Item No. 25.2	Construction of RCC retaining wall with RCC	We understand that only RCC shall be covered under this item. Balance items required for RCC retaining wall like excavation,PCC,reinforcement etc. shall be paid under respective items of Billing price schedule i.e Items no. 1 to 9 Please confirm.	The amendment has been made to the Price schedule. Please refer the amendment
74	Price Schedule/Item No. 32	Piling Boring, providing and installation of bored cast-in-situ RCC vertical piles of specified diameter and of any length below the pile cap with M25 grade of cement concrete, excluding placing the reinforcement steel but including the cost of boring including temporary guide casing (supplying and providing M.S Liner), Betonite solution and the length of pile to be embedded in the pile cap(Length of pile for payment shall be measured from bottom of pile cap), all necessary labour , materials, plants, tools and tackles etc. complete as necessary for proper execution of the job.	a) Please clarify if RCC m25 for piling is to be included in this item only or pile concrete will be paid under item no. 4 of Civil price schedule. B) Excavation,PCC,Reinforcement : We understand that excavation, PCC , reinforcement required for pile cap and vertical piles shall be paid under item no. 1 to 8 of price schedule.Please confirm.	The amendment has been made to the Price schedule. Please refer the amendment.
75	Chapter 14- General Technical requirements- Civil works/Clause no. 24.16	24.16 Building The measurement of all items except excavation, concrete, reinforcement steel of each type of buildings shall be made on area in Square Meter basis.	Request customer to clarify mode of measurement for buildings if carpet area shall be measured or plinth area etc. Also specify the codes which shall be followed for measurement of the area in square meter as mentioned.	The mode of payment shall be sq.m basis.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
76	Site	Site	<p>Due to travel restrictions because of Covid 19, we request M/s.NEA to provide us the</p> <p>i).Construction material availability (aggregate, sand, borrowed earth, bricks etc..) and its rates along with supplier details.</p> <p>ii). Local condition like availability of water and power, proposed site location along with coordinates and village name.</p> <p>iii).Availability of guest house, nearest bus/railway station, availability of guest house if any, detail of nearby any construction work.</p> <p>iv). Borewell depth to be considered for water supply, photographs of the proposed site etc...</p> <p>v). We would like to setup labour camp for approximately labour force of 150Nos (Skilled and unskilled) during the peak period adjacent to the proposed site. Request M/s.NEA to provide permission for the same. Kindly do inform us about the lease cost for the same in monthly basis in order to set up the same adjacent to the proposed site.</p>	<p>The requested data will not be provided. Bidder is advised to visit and examine the site where the plant is to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a contract for the provision of plant and services. The costs of visiting the site shall be at the Bidder's own expense.</p>
77	Site	Site	<p>We assume that necessary construction permission along with required gate passess without any delay will be provided to us for our staff, labour, vehicles and for working at night. Kindly confirm</p>	<p>Confirmed. NEA will facilitate for the necessary permission required based on the prevailing laws of Nepal. Further Considerations for public health and social measures in the workplace in the context of COVID-19 as per PSR clause 15 shall be strictly followed.</p>
78	Site	Hinderance Register	<p>Hinderance register shall be maintained by us at site which shall include the delays due to force majures,rain fall,natural calamities, local issues etc. and extension/compensation shall be provided to us for the same.</p>	<p>Please refer to GCC for the details.</p>
79	Site	PV clause	<p>Due to the volatile market, nationwide lock down and travel restrictions due to Covid 19 request M/s.NEA to add the price variation clause for civil works.</p>	<p>The requested clause will not be added.</p>



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
80	Site	Site office, stores, batching plant, fabrication yard etc ...	Request M/s.NEA to permit for having site office / stores / batching plant/fabrication yard within NEA proposed site for smooth coordination works.	Total area of plot is around 6000 Sqm. Contractor can use area of the plot to establish temporary facilities for execution as per the provisions available in the contract.
81	Site	Hinderances in the proposed site	We understand that encumbrance free land shall be handed over to us.No dismantling,tree cutting,jungle clearance etc. is under present scope of works.Please confirm.	NEA has already completed process of acquiring of the land. If tree cutting, jungle clearance are required, NEA will facilitate in the matter. Dismantling works if specified in the contract shall be in the scope of the contractor.
82	Site	Construction power and water	We assume that construction power and water will be provided at one point within the proposed Switchyard free of cost. Kindly confirm	NEA shall facilitate/recommend to the concerned utility for water and electricity subject to availability of the same. Any cost implications shall be borne by contractor itself.
83	Site	Testing Laboratory	We request you for the details on the approved construction material testing laboratory.	Contractor has to propose material testing laboratory for approval. In the basis of their work experience and credentials NEA shall accept/reject the proposal.
84	Site	Land acquisition	We understand that proposed land for both stations has been acquired by NEA.Please confirm.	Confirmed.
Commercial Queries				



Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

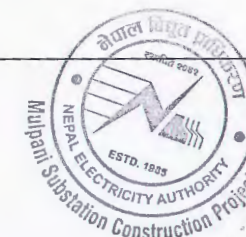
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CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
85	Vol 1-General Conditions of Contract/Clause No. 24)	GCC 24 Completion of the Facilities	<p>Following Completion and Deemed Completion clause to be added to the Conditions:</p> <p>(a) As soon as the Contractor achieves the Works Completion of the contract works, it shall issue to the Employer a notice (Notice of Works Completion) informing about the completion of the work.</p> <p>(b) Within 14 days following receipt of the notice of works completion, the Employer shall issue the Completion Certificate to Contractor, failure to which it shall be considered that the work has been successfully completed as on the date of the contractor's notice & Deemed Completion Certificate will be considered to have been issued.</p> <p>(c) Completion is also deemed to have taken place if the Works or any part thereof are put to use by the Employer.</p> <p>(d) If Commissioning is delayed due to reasons not attributable to Contractor, Contractor shall be allowed to demobilize the site after 2 months waiting and shall provide commissioning support as & when required. Consequently retention payment (if any) to be released against BG.</p> <p>The Defect Liability Period shall be deemed to have be started from the date of the such Deemed Completion Certificate.</p>	Provisions on the contract will not be changed.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
86	Vol 1-GCC / Clause No. 27 and SCC / Clause No. 27	<p>GCC 27.2 The Defect Liability Period shall be 540 days from the date of Completion of the Facilities (or any part thereof) or one year from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC pursuant to GCC Sub-Clause 27.10.</p> <p>GCC27.10 In addition, any such component of the Facilities and during the period of time as may be specified in the SCC shall be subject to an extended Defect Liability Period. Such obligation of the Contractor shall be in addition to the Defect Liability Period specified under GCC Sub-Clause 27.2.</p> <p>SCC 27. Defect Liability</p> <p>27.10 The critical components covered under the extended defect liability are GIS, power/ Autotransformers, Substation Automation System (SAS) and the period shall be three (3) years.</p>	<p>Request for the modification in the existing clause:</p> <p>GCC 27.2 The Defect Liability Period shall be 540 days from the date of Completion of the Facilities (or any part thereof) or one year from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC pursuant to GCC Sub-Clause 27.10.</p> <p>GCC27.10 In addition, any such component of the Facilities and during the period of time as may be specified in the SCC shall be subject to an extended Defect Liability Period. Such obligation of the Contractor shall be in addition to the Defect Liability Period specified under GCC Sub-Clause 27.2.</p> <p>SCC 27. Defect Liability</p> <p>27.10 The critical components covered under the extended defect liability are GIS, Power/Autotransformers, Substation Automation System (SAS) and the period shall be three (3) years.</p>	Provisions on the contract will not be changed.
87	Vol 1_Special Conditions of Contract/ Clause No. 7.3	<p>The Contractor agrees to supply spare parts for a period of years: 5 Years</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 and opening the letter of credit. 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>	<p><u>Please clarify the below two points:</u></p> <p>1) 6 months delivery is not possible for all equipments. We confirm prompt supply of spares within a reasonable period. Please confirm.</p> <p>2) Blueprints of spare parts are intellectual property of the manufacturers. We understand that only the non-IPR related drawings/as-built drawings need to be provided under this clause for the purpose of identification of spare parts. Please confirm.</p> <p>3) In case of discontinuance of the manufacture of spares for the equipments supplied, functional equivalents shall be supplied by the Contractor.</p>	<p>i. Confirm</p> <p>ii. Confirm</p> <p>iii. As per the bid document</p>

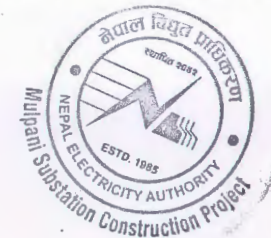


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

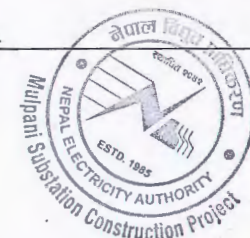
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
88	Vol 1_Special Conditions of Contract/ Clause No. 14	Additional Clause (Taxes & Duties)	<p>Please add to the end of the paragraph as below:</p> <p>Custom Duty shall be issued to the Authorities within 3 days of submission of request for Duty payment by Contractor. In case of delay by Employer, the Contractor shall be entitled to time & cost reimbursement. Any detention or Demurrage due to delay in issuance of Custom Duty payment should be borne by the Employer based on the documentary evidence provided by the Contractor.</p>	Provisions on the contract will not be changed.
89	Vol 1_Special Conditions of Contract/ Clause No. 14	Additional Clause (Taxes & Duties)	<p>Please confirm on the following:</p> <p>1. We understand that as per Nepal Tax law, 1.5% TDS is applicable to contractors i.e. TDS will be deducted on entire onshore contract value, if the Bidder has VAT registration in Nepal.</p> <p>2. There is a favourable Double Taxation Avoidance Agreement (DTAA) available between Government of Nepal and contractor's country (India). We understand that as per the Double Taxation Avoidance Agreement (DTAA) agreement between India and Nepal, Customer should not deduct any taxes while making the payments for offshore supplies scope.</p>	<p>1. 1.5% or as applicable will be deducted for onshore supply and services, if bidder is VAT registered.</p> <p>2. For offshore supply, 5% or applicable TDS will be deducted if the payment is made directly to offshore bank. However, the evidence for TDS payment will be made available to the contractor for purpose of DTAA.</p>



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
90	Vol 1_Special Conditions of Contract/ Clause No. 46	<p>SCC 46</p> <p>The Contractor shall comply with all applicable national, provincial, and local environmental laws and regulations. The Contractor shall (a) establish an operational system for managing environmental impacts, (b) carry out all of the monitoring and mitigation measures relevant to the Contractor set forth in the Initial Environmental Examination ("IEE") and the Environmental Management Plan ("EMP") and (c) allocate a budget to ensure that such measures are carried out. The Contractor shall submit semi-annual reports on the carrying out of such measures to the Employer.</p> <p>More particularly, the Contractor shall comply with (i) the measures and requirements set forth in the initial environmental examination and the environmental management plan attached hereto as Appendix [please insert]; and (ii) any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the initial environmental examination and the environmental management plan.</p> <p>The Contractor shall allocate a budget for compliance with these measures, requirements, and actions.</p>	<p>Referring to the SCC 46, kindly provide us in details what permits and approvals are to be taken by Contractor in this project.</p> <p>Also let us know in details what are these terms like IEE,EMP mentioned in this clause and please share the related plans for contractor to comply.</p>	<p>IEE: Initial Environment exam. Is not applicbel for this contract. Hower EMP: Environment Mitigation Plan is attached with the bid document as a Appendix. Please refer the the attached EMP.</p>



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
91	Contract Form	<p>3.1 Effective Date (Reference GCC Clause 1) The Effective Date upon which the period until the Time for Completion of the Facilities shall be counted from is the date when all of the following conditions have been fulfilled:</p> <p>(a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor.</p> <p>(b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee.</p> <p>(c) The Employer has paid the Contractor the advance payment.</p> <p>(d) The Contractor has been advised that the documentary credit referred to in Article 2.2 above has been issued in its favor.</p> <p>Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.</p>	<p>Please modify the clause as below:</p> <p>The Effective Date upon which the period until the Time for Completion of the Facilities shall be counted from is the date when all of the following conditions have been fulfilled:</p> <p>(a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor.</p> <p>(b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee.</p> <p>(c) The Employer has paid the Contractor the advance payment for both portion - offshore and onshore portion</p> <p>(d) The Contractor has been advised that the documentary credit referred to in Article 2.2 above has been issued in its favor.</p> <p>(e) The employer has established letter of credit for reimbursement of payment to contractor full value of contract.</p> <p>(f) The Employer handed over clear sites including necessary permits.</p> <p>Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.</p>	No changes in the provision of the contract
92	Contract Form	Section 9 Appendix 1- Payment terms	We understand that letter of credit shall be opened at the time of contract signing for the full value of contract. Please confirm.	Process for opening of Letter of credit shall be started as soon as proforma invoice is received from the contractor. The Letter of credit will be opened as
93	Additional clause	Land Availability	Please confirm whether land is acquired or not by the customer for this whole project.	Land is already acquired.
94	Additional clause	Funding Details required	<p>Please confirm :</p> <p>We understand that NEA has signed the financial closure loan agreement with ADB. The funding will cover both off shore and on shore portion payments.</p>	Confirmed.



Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
95	Additional clause	Contractor's responsibilities	<p>Please confirm:</p> <p>1. Contractor will provide technical support/ assistance to Employer for taking all necessary approvals, permits & licences from all local, state or national government authorities or public service undertakings or other competent authorities. Contractor shall be responsible for only those permits that has to be taken in his own name.</p> <p>All necessary fees for such approvals shall be paid by Employer only.</p>	Contractor has to obtain required permits/approvals for execution of the facilities on their own. NEA shall only facilitate for those permits/approvals. Cost shall be borne by the contractor itself.
96	Additional clause	Additional clause	We understand that Contractor shall not be responsible for statutory approvals, tree cutting, forest clearance, site clearances, access to site and right of way. The same shall be in scope of Employer.	Confirmed.
97	Additional clause	Bid validity	<p>If the award is delayed by a period exceeding forty-five (45) days beyond the expiry of the initial Bid validity, the Contract Price shall be determined as follows:</p> <p>The Contract Price shall be adjusted by a factor reflecting local inflation during the period of extension and the foreign currency portion of the fixed portion of the Contract Price shall be adjusted by a factor reflecting the international inflation (in the country of the foreign currency) during the period of extension.</p>	This is the fixed price contract. No change in contract price is allowed.
98	Additional clause	COVID 19	<p>Please add the following as a separate clause:</p> <p>The Parties acknowledge the worldwide outbreak of the COVID-19, which is likely to affect the execution of the Agreement. The Parties agree, that Supplier shall be entitled to reasonable adjustments of the Delivery Schedule/ milestones/ delivery dates as well as to reimbursement of costs to the extent the delay and the costs are caused directly or indirectly by the outbreak of COVID-19.</p>	No separate clause is added. Matter shall be dealt with as per the provision available in the contract.



Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
99	Additional clause	Bank Guarantees	In case of award of contract, Can a bidder submit the Advance bank guarantee and Performance Bank Guarantee from a bank in India.	Advance Payment Guarantee and Performance Guarantee shall be counter guaranteed by the commercial bank of Nepal.
100	Additional clause	Foreign Exchange	Bidder requests that any changes in the cost of the project resulting from changes in the rates for major Foreign Currencies shall be borne by the Customer. Foreign exchange variations shall be provided to the Bidder against submission of documentary evidence. Further the Bidder shall provide the Foreign exchange rates as taken at the time of bidding of the project.	Cost associated with variation in the foreign exchange rates will not be provided. Please quote the currency(ies) as per ITB 19.1.
Technical Queries General				
101	Layout Plan	General	We understand that the 132kV line orientation shown in the layout is fixed and the same cannot be altered, kindly confirm.	RoW of the existing line cannot be changed.
102	Layout Plan	General	We understand that no future bays are planned for this station , Kindly confirm	Bay extension module shall be provided in the 132kV GIS. Further layout shall be prepared with provision for future extensions.
103	Layout Plan	General	We understand that in absence of future bays we don't need to provide isolating link in the GIS , Kindly confirm	Bay extension module shall be provided in the 132kV GIS.
104	Layout Plan	General	We understand that either 145kV GIB or 145kV EHV can be used for outgoing lines and Transformer, Kindly confirm	For Outgoing lines, 145 kV grade EHV cables shall be used whereas for Transformer EHV cables or Duct can be used.
105	Layout Plan	General	We understand that cable cellar will be planned if 145kV EHV cable is used, kindly confirm	During DDE.
106	Layout Plan	General	We understand that the gantry tower arrangement can also be proposed, kindly confirm	During DDE. Considering the current line profile passing through the site, tower with arrangement for mounting LA and Cable termination is envisaged. If suitable alternative arrangement is possible, can be decided during DDE.
107	Control Room	General	We understand that the drawing shown is tentative and bidder can propose suitable solution to fulfil the functional requirement	Confirmed.

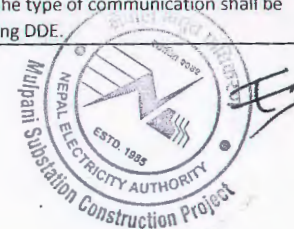


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

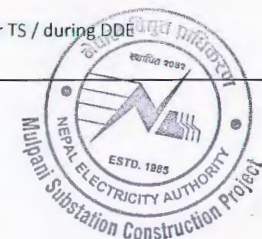
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CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

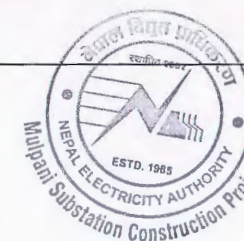
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
108	SLD	General	We understand that no tertiary winding is required in the transformer, Kindly confirm	The design of the transformer is in contractor's scope. The tertiary is not provided, the design should be done considering all requirement for third harmonic suppression, stability etc.
109	Price Schedule /SLD		6 Nos of 145kV AIS LA are shown in the price schedule whereas, 15 Nos of LA are shown in the SLD, Kindly confirm the requirement	Please provide as per BPS. Please check revised BPS.
110	Price Schedule		We understand that the transmission tower shown in the layout is not in scope, kindly confirm	2 Nos of Tower for complete LILLO arrangement is in the scope of the contract.
111	Price Schedule		We understand that the battery sizes mentioned in the schedule is final and no further sizing calculations are to be done, kindly confirm	Confirmed.
112	Price Schedule		We understand that the 145kV EHV cable sizes mentioned in the price schedule is final and no further sizing calculations are to be done, kindly confirm	Confirmed.
113	Technical specification	Earthing System	Kindly Provide the Earth resistivity value to be considered for bid Quantity estimation	Earth Resistivity measurement is in the scope of the contract. Please find the attached value for reference only.
114	Technical specification	Lightning System	Kindly confirm whether HPSV or LED type luminaries are to be considered for outdoor illumination	As per TS / during DDE
115	Technical specification	Lightning System	We understand that the luminary 's model shown is for reference , equivalent model can also be proposed, kindly confirm	Confirm
116	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad - part-A - Relay panels (with automation) - CI H 1.1	Line Control and Protection Panel with Differential / Distance Relay	Please provide the line length and communication type which are to be used in defining the line differential protection scheme between local and remote end.	Approximate length of Mulpani Substation from Chapali S/S and Bhaktapur S/S is 7.5km and 6 km respectively. However new Changunarayan S/S will be constructed between Bhaktapur and Mulpani Substation that is approx. 3 -4 km from Mulpani Substation. The type of communication shall be finalized during DDE.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
117	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad - part-C mandatory spares - Common Spares - CI 3.1	Common Spares CI 3.1 - Power supply module for Bus Bar protection.	As power supply shall be inbuilt in centralized busbar relay therefore we understand that if offered busbar protection relay has redundant power supply then in that case, power supply module is not to be offered as spare. Kindly confirm	Please provide as per BPS / during DDE.
118	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad - part-C mandatory spares - Common Spares - CI 3.2	Common Spares CI 3.2 Bay unit module	As the busbar requested in the tender document is centralized type hence we understand that separate bay unit module shall not be offered as spare. Kindly confirm	Please provide as per BPS / during DDE.
119	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad - part-C mandatory spares - Common Spares - CI 3.3.1	Common Spares CI 3.3.1 - Breaker failure relay	As the busbar requested in the tender document shall have inbuilt breaker failure protection functionality and dedicated breaker failure relay are not required therefore we understand that breaker failure relay is not to be offered as spare. Kindly confirm	Please provide as per BPS / during DDE.
120	Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad - part-C mandatory spares - Common Spares - CI 3.1, 3.2, 3.3.1	Common Spares CI 3.1 - Power supply module for Bus Bar protection. CI 3.2 Bay unit module CI 3.3.1 - Breaker failure relay	If at all, the spare is to be offered against these line item, then the bidder can offer only 1x centralized busbar relay base module against all these three-line item. Since LBB is inbuilt function of Busbar protection relay and offered busbar is centralized busbar protection. Hence no separate bay unit is required. Kindly confirm.	Please provide as per BPS / during DDE.
121	VOLUME -II OF III Chapter 1 – Project Specific Requirement (PSR)	CI 4.1.24 Visual Monitoring System	We understand that VMS is not to be integrated with SAS as it will choke the bandwidth of SAS communication. Also, SAS shall not communicate (give data or take commands) with VMS. Kindly confirm.	As per TS / during DDE
122	VOLUME -II OF III Chapter 1 – Project Specific Requirement (PSR)	CI 5.e - Physical and other parameters Seismic Requirement	Please provide the below mentioned details as applicable to CRP and SAS panels - 1. Seismic zone level 2. Test input spectrum	As per TS / during DDE



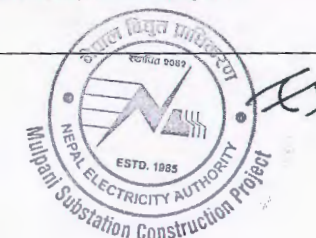
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
123	VOLUME –II OF III Chapter 1 – Project Specific Requirement (PSR)	CI 13.k - Specific Requirement One number each Energy meter for the record and revenue purpose is to be provided for each 132/11V bays	Can we place these meters in the respective C&R Panels of the bay? Kindly confirm.	Confirm. As per TS / during DDE
124	VOLUME –II OF III Chapter 1 – Project Specific Requirement (PSR)	CI 13.l - Specific Requirement The reference of IS standard (i.e. Indian Standard) mentioned in the technical specification shall be read as equivalent IEC or BS or equivalent International Standard.	We understand that Indian standard / IEC / BS / Equivalent International standard are acceptable for the offered equipments. Kindly confirm.	Please refer the PSR / GTR.
125	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 3.7 At existing station, panels shall be matched with other panels in the control room in respect of dimensions, colour, appearance and arrangement of equipment (centre lines of switches, push buttons and other equipment) on the front of the panel.	We understand that this is a greenfield station and we do not need to match the offered C&R panel / SAS panels with existing one. Kindly confirm. If we have to match then please provide the details like dimensions, colour shade, IP class, panel type (simplex/duplex) etc.	Confirm.
126	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 7 Mimic Diagram	We understand that C&R panel shall be BCU based. BCU has inbuilt graphical display for displaying the bay SLD and controlling equipments. For BCU based C&R panels, Mimic diagram shall not be applicable. Kindly confirm.	Confirm.
127	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 11.1 Indicating Instruments	We propose to use single energy meter (as per annexure-V) to display these measurements as well as for revenue. Kindly confirm.	Energy meter are for revenue metering. For other purposes, please provide Multi function meters as per TS.
128	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 11.2 Transducers	Since BCU, Meters, Numerical relays are used which shall be directly connected to CT/PT hence the transducers shall not be required. Kindly confirm.	Confirm.



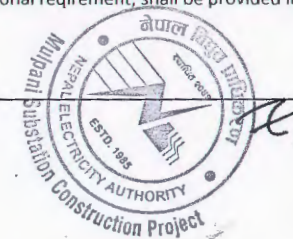
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
129	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 12 Annunciation system for control panel	Since all the panels (CRP and SAS) are placed in a single room therefore we envisage that annunciation (visual/audio) on SAS HMI shall be used and dedicated annunciation in each control panel is not required. Kindly confirm.	Please provide as per TS / During DDE.
130	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 16 Synchronizing Equipment	Synchronization shall be part of BCU hence separate synchronization trolley / Equipments are not envisaged. Kindly confirm.	Please provide as per TS / During DDE.
131	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 18.7 Auto reclose relay function if offered as an integral part of line distance protection relay, shall be acceptable for 132 KV lines only provided the auto reclose relay feature meets the technical requirements as specified in the respective clause.	Auto reclose is offered as an inbuilt function of Line protection relay for 132kV. Kindly Confirm	Confirm
132	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 19.1 Numerical auto-reclosing	We understand that this is required for line bays only and shall be part of Main protection relay of Line (as per CI 18.7) and separate relay for this function is not envisaged. Kindly confirm.	Confirm
133	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 19.2 Local breaker back-up protection scheme	We understand that this shall be part of centralized busbar protection relay (as per CI 26.3) and separate relay for this function is not envisaged. Kindly confirm.	Confirm. The requirement of the substation shall be fully complied.
134	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 26.1 Single bus bar protection scheme shall be provided for each main bus and transfer bus (as applicable) for 220KV and 132 KV voltage levels	We shall offer single centralised Busbar protection which is capable to provide protection for both Main Bus and transfer Bus together. Separate relay for each bus / zone shall not be offered. Kindly confirm.	Confirm as per TS. The requirement of the substation shall be fully complied.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
135	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 26.3 Built-in Local Breaker Backup protection feature as a part of bus bar protection scheme shall also be acceptable	We understand that LBB is as an inbuilt function of Centralized Busbar Relay Kindly Confirm	Confirm. The requirement of the substation shall be fully complied.
136	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 28.1 The fault recorder shall be provided for transmission line and the fault recorder as in-built feature of line distance relay is also acceptable provided the requirements of following clauses are met.	We understand that fault recording is to be offered for 132 kV line bays only. Inbuilt feature of fault recording in Line differential/distance relay is also acceptable. However as per CI 33 Line protection panel - Fault recording is not applicable for 132 kV line bays. Kindly confirm.	Fault locator and recorder are both required in the line bays.
137	Chapter 15 – General Technical Requirement, Control & Relay Panels	CI 28.1 (g) In case the Fault recorder is in-built part of line distance protection, above digital channels may be interfaced either externally or internally.	We understand that interfacing of signals through GOOSE is also acceptable. Kindly confirm.	As per TS.
138	General	CI 33 Control panel	Since this is a BCU and SAS based system so can we remove the conventional control / indications from the C&R panel? Also, synchronization shall be part of BCU hence separate synchronization trolley / Equipments are not envisaged. Kindly confirm	Please provide as per TS / During DDE.
139	General	--	Can we propose control and relay devices within single simplex panel? Kindly confirm	Please provide as per TS / During DDE.
140	General	--	Can we merge the backup protection in the BCU, and offer BCPU? Kindly confirm	Please provide as per TS / During DDE.



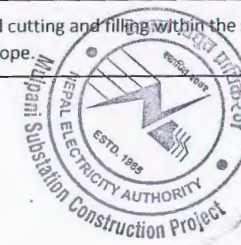
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
141	General	--	Can we merge bus coupler and busbar protection scheme in one common panel ? Kindly confirm	Please provide as per TS / During DDE.
142	General	--	We understand that Main Line protection relay shall have both distance and differential feature into it. Kindly confirm	Confirm
143	General	--	We understand that CRP and SAS including busbar is to be offered for present no. of bays and not for future bays. Kindly confirm	The provision for integration of 2 nos of future bay is to be provided.
144	Chapter 17 – General Technical Requirement, Substation Automation system	CI 1.2 Remote HMI	Please clarify if Remote HMI is required and what shall be the location of remote HMI? Also, confirm the protocol for communication with remote HMI.	During DDE
145	Chapter 17 – General Technical Requirement, Substation Automation system	CI 2.2 The communication shall be made in fault tolerant ring in redundant mode, excluding the links between individual bay IEDs to switch wherein the redundant connections are not envisaged, such that failure of one set of fiber shall not affect the normal operation of the SAS. However failure of fiber shall be alarmed in SAS. Each fiber optic cable shall have four (4) spare fibers.	Please clarify if - 1. dual ring network is required between ethernet switches placed in bay level an station level? 2. GI/HDPE pipes are required if FO cable runs outside the C&R / SAS panels? 3. 4 spare fibres are required only in armoured FO going outside the C&R / SAS panels?	Please provide as per TS.
146	Chapter 17 – General Technical Requirement, Substation Automation system	CI 2.2 The protocol is IEC 60870-5-101 or IEC 60870-5-104.	Please clarify if telecontrol protocol shall be IEC-101 or IEC-104?	IEC - 104 shall be provided.
147	Chapter 17 – General Technical Requirement, Substation Automation system	CI 2.2 Optional data concentrators, even redundant, providing the interface between legacy field bus communicating IED's and the IEC61850 substation bus. The protocols are serial or TCP/IP versions for IEC 60870-5, DNP3.0 and Modbus.	Please clarify and elaborate this requirement?	This is optional requirement, shall be provided if required.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
148	Chapter 17 – General Technical Requirement, Substation Automation system	<p>CI 3.3.4</p> <p>The gateway shall be able to send to the remote control centre, but not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Single point indication with time. <input type="checkbox"/> Double point indication with time. <input type="checkbox"/> Transformer tap position with time. <input type="checkbox"/> Measurement value with time. <input type="checkbox"/> Integrated total (counters). <input type="checkbox"/> Disturbance record files. <p>The gateway shall be able to receive from the control centre:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Single control, either direct or as a select/execute sequence. <input type="checkbox"/> Double control, either direct or as a select/execute sequence. <input type="checkbox"/> Interrogation command on a group of data. <input type="checkbox"/> Clock synchronisation. <input type="checkbox"/> Counter freeze. <input type="checkbox"/> Taking control. This facility allows a remote control point to force the mode of the substation from LOCAL to REMOTE and to define on which port the SCADA controls must be accepted. 	<p>Kindly note that the data transmission / communication over IEC-101 or IEC-104 to remote control centre shall be as per the protocol profile and capabilities.</p>	<p>Please provide as per TS / During DDE.</p>
149	Chapter 17 – General Technical Requirement, Substation Automation system	<p>CI 4.1.5</p> <p>Switched Ethernet Communication Infrastructure</p>	<p>Please clarify if 4 bays of 132 kV or 8 bays of 11 kV can be clubbed in one ethernet switch respectively for SAS communication.</p> <p>Kindly confirm.</p>	<p>Please provide as per TS.</p>
150	Chapter 17 – General Technical Requirement, Substation Automation system	<p>CI 4.2.1</p> <p>Dual on-Board with dual I.P. addresses on IEC-61850 & upgradeable in future</p>	<p>Relay shall have the dual onboard ports wherein both ports shall have same IP address on IEC 61850. Ports in the relay shall not be upgradeable.</p> <p>Kindly confirm the acceptance.</p>	<p>Please provide as per TS.</p>



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
151	Chapter 17 – General Technical Requirement, Substation Automation system	CI 5.1.1.4 The cyber security features shall improve the overall quality of the system and improve the reliability and the availability of operations by securing the access of each device and providing an audit capability. The solution should be based on IEC62351, IEC62443-3-3, and NERC CIP Vendors shall be certified for Bronze Level Practice Certification (IEC62443-2-4).	As per CI 3.3.4, we understand that cyber security is only applicable for telecontrol gateway.	Please provide as per TS.
152	General	--	We understand that all the bay level devices shall be communicating to SAS over IEC 61850.	Please provide as per TS.
153	General	--	We understand that the meters shall not communicate to SAS.	Metering data shall be provided from the meters.
154	General	--	We understand that 11 kV Switchgear supplier shall supply, test and commission the BCU/BCPU for 11 kV bays. Please Confirm	The project is a turnkey contract, therefore the contractor shall be responsible for completion of the project. The manufacturer's personnel if required shall be present if required by the specification.
155	Chapter 23 – Technical Data sheet, item no. 10 - Substation Automation system, Section-E	E. DR Workstation Point 16 - Modem	Modem with DR workstation shall not be offered as this technology has become obsolete now. Kindly Confirm	Confirm
156	Site visit	Residential House near the site	Please confirm the residential buildings are not in NEA premises. Any dismantle / Shifting / Right of way etc. if required within or outside boundary wall shall be in NEA responsibility. Please confirm	Confirm
157	Site visit	11kV Distribution line crossing over the site.	Shifting of 11kV Distribution line passing over & near the site area are not in bidder scope of work. Please confirm	Confirm
158	Site visit	Mountain cutting	Land is near by small mountain. Please confirm there is no Mountain / Rock cutting in the scope of work.	All cutting and filling within the site is in contractor scope.

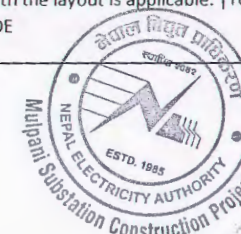


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

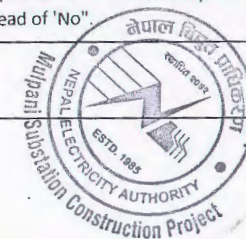
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CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

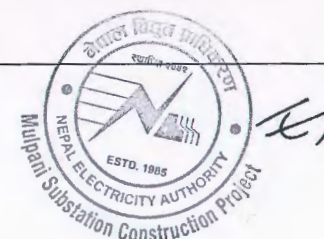
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
159	Site visit	Approval of Tree cutting	Approval for any tree cutting (if required) are not in bidder scope. NEA has to provide necessary permission from respective authority. Please confirm.	Tree cutting if required shall be done by the contractor. However, any permission if required will be provided by NEA.
160	Site visit	Dump yard and local material	During visit we observe that there are a dump yard for Sand / Aggergate, garbage, a small Tin shed and many Local buses are kept in the NEA plot. Removal of these items are not in bidder scope. Please confirm.	Site will be cleared by NEA as required.
161	General	GPS Co-ordinate	Please provide Site GPS Co-ordinate of Mulpani substation.	Attached
162	General	Soil report	Please provide Soil Report (complete set) including Earth Resistivity test.	Attached
163	General		In tender Documents there are many places "Changunarayan" and "Lapsipedi" written. Is it typo error or some scope of work bidder has to do for these site. If yes, then please clarify the scope of work.	It's a Typo error.
164	General		Approach road is already available till site. We have to construct the Road within substation area. Please clarify.	Internal road is in the scope
165	General		Please provide previous approved drawings for Layout/ foundation/ Equipments, in order to submit competitive bid.	The layout may change depending upon the site conditions. However, the drawing if required will be provided to successful bidder.
166	General		There are some mismatch in Price Schedule/ Tender Drawing / Specification. Please confirm what is the order of precedence for Bidder. Accordingly Price bid will be submitted.	Please submit the bid as per the BPS.
167	General		2 types of Layout are given in the tender document. Please confirm which one bidder has to follow.	Both the layout is applicable. To be decided during DDE



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
168	General		2 nos. Transmission Line Dead end tower (for Line In Line Out) bidder have to construct as per scope. Please confirm, location of these Deadend towers are within Substation boundary.	Confirm
169	General		Hardware, Conductor and other accessories for Deadend tower at both end are not in Bidder scope or existing hardware will be sufficient to interconnect. Please confirm. If it is in bidder scope then please provide details of conductor and hardware etc.	The hardware and accessories if required shall be provided by the Contractor. The existing conductor is ACSR Bear.
170	PSR	4.1.17 132kV XLPE Cu Cables shall be supplied with all accessories, termination arrangement for connection of overhead lines to the GIS switchgears. The termination arrangement shall be mounted on the specially designed tower along with Lightning arrestors. Please note, the existing building layout is below the existing line, therefore the bypassing arrangement might be required using the cables, before construction of the building is started.	Incase Bypass arrangement is required as per the scope of work during execution, Bidder request to provide separate line item in the price schedule for Temporary arrangement for 132kV Line.	The bypass arrangement where required is in bidder's scope and shall be quoted by the bidder in the respective items. No extra cost will be paid.
171	General		Please provide Earthing Calculation approved for this project in previous contract for ref. purpose.	The design is in contractor's scope.
172	General		Is there any piling work required for this site. Please confirm	The PS/R already indicate that the substation might require pile foundation.
173	General		Due to Covid and International travel restriction, Please allow for online bid submission. Bid Security shall be submitted in original in NEA office.	Online submission is not allowed as per ADB regulation.
174	Specification	14.0 FIRE FIGHTING PUMP HOUSE BUILDING	Kindly confirm the number of transformer for which HVWS System asked as in drawing two numbers are shown while in BOQ one number mentioned.	The FFPH shall be designed to cover all transformer and equipment. Please read the quantity in BPS as 'Lot' instead of 'No'.
175	Price Schedule Volume 3	Fire Protection System per technical Specification)	Kindly confirm the area to be covered under hydrant system.	



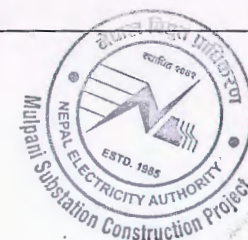
S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
176		1) Pumping arrangement for HVW system & hydrant system, complete with all piping, valves, fittings, etc. inside pump house	Kindly confirm or mark the location of pump house in layout drawing.	
177		2) Hydrant system, complete U/G piping and accessories etc. outside the Pump House. 3) HVW spray system, Hydrant system and complete U/G & O/G piping and accessories etc. out side the pump house for Transforme	You have asked conventional fire alarm system for control room building ,GIS Building, Indoor Switchgear Building and Switchyard panel rooms of substations, there is only one drawing available of control room building. Please provide other drawings available.	
178	Price Schedule Volume 3	G Testing & Maintenance Equipment for GIS 1.1 SF6 Gas processing Unit - Set 1 1.2 Partial Discharge Monitoring System for 145kV GIS System as per Technical Specification, GIS - Set 1 1.3 Dew Point meter for 145kV GIS System - Set 1 1.4 SF6 Gas Leak Detector for 145kV GIS System - Set 1 1.5 EOT crane for 145kV GIS Hall - Nos. 1 1.6 SF6 Gas Analyser - Set 1	In order to propose similar testing tools by the bidder, request to provide the make list and country of origin to be supplied under Mandatory spare list.	There are no shotlisted make list for testing equipment. Regarding the country of origin, the equipment shall be from ADB eligible country as per the list attached in the bid document.
179	Price Schedule Volume 4	1.0 145KV GIS Equipment 1.0 145KV GIS Equipment 1.0 145kV, SF6 GIS Bus Bars Module [Module description as per Technical Project specification] Sets 2 1.2 145kV, SF6 GIS Bus Coupler bay Module [Module description as per Technical Project specification] Set 1 1.3 145kV, SF6 GIS Line bay Module [Module description as per Technical Projct specification] Sets 4 1.4 145kV, SF6 GIS ICT feeder bay Module for Transformer [Module description as per Technical Project specification]	Tender Drawing and Price Schedule are not matching. Busduct is shown in the layout however in the Price schedule there is no separete line item for Busduct and SF6 Air Busing. Please provide the correct amendment as per the scope requiriement.	The bus duct outside of the GIS hall is not required. The scheme is to us XLPE EHV cable for connection.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
180	Vol 1, Section 3 - Evaluation and Qualification Criteria	<p>2.5 Subcontractors</p> <p>Power Transformer (132 kV voltage class)</p> <p>iv) Must have successfully carried out the complete type test including Dynamic Short Circuit (DSC) test as per IEC over last 10 years period as on the originally scheduled date of bid opening in Short-Circuit Testing Liaison (STL) - Accredited Laboratory OR must have successfully completed type test including DSC test conducted as per IEC over last 7 (seven) years period as on the originally scheduled date of Bid opening in any internationally accredited Laboratory in the presence of STL representative and certified the same by STL representative as indicated below :</p> <p>- Type test on 132 kV voltage class, three phase 45 MVA and DSC Test on similar type of 132 kV Voltage level Transformer. However, IF the Bidder/Manufacturer has not conducted the complete type tests including DSC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory OR has not conducted complete type test including DSC test in the presence of STL representative in an Internationally accredited laboratory as mentioned above within last 10 years</p> <p>THEN</p> <p>the bidder has to submit an undertaking letter along with the bid to carry out the complete type test on the above mentioned ratings of transformers including DSC in Short-Circuit Testing Liaison (STL)-Accredited Laboratory OR to carry out the complete type test along with the DSC in the presence of STL representative and NEA</p>	<p>We refer to the Type Test requirement of Power Transformer (45MVA, 132kV, 3 Ph) , the bidder understand that along the bid Transformer Manufacturer (OEM) need to submit type test and DSC of Power Transformer from STL Lab. incase OEM don't have the same then they have to conduct it during the execution.</p> <p>132kV Power Transformer, 45MVA is not a regular rating hence none of the OEM are having Type Test Report 45 MVA Power Transformer.</p> <p>Bidder understand qualification of 45MVA Power Transformer Type Test requirement including DSC can also be met with +/- 10% MVA Rating (app) i.e. 40 MVA or 50 MVA.</p> <p>Acceptance of the above point would also save the Time & cost of the project during execution.</p> <p>Please confirm your acceptance.</p>	<p>No changes in the EQC will be considered.</p>



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
181	Vol 3: Price Schedule Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad	L) Batteries 1 220V 1.1 600 AH Nos 1 2 48V 2.1 600AH Nos 1 M) Float Cum Boost Battery Charger 1 220V Float Cum Boost Battery Charger 1.1 80A/80A Nos 2 2 48V Float Cum Boost Battery Charger 2.1 80A/80A Nos 2	Bidder understand that minimum Size of Batteries & Charger is mentioned in the bidding document. which has to be supplied for the project. During detailed engineering incase there is increase of AH rating of Batteries and Ampere rating of Charger, then NEA will settle the price increase for bidder (if any). Please confirm our understanding is correct.	
182	Volume 2 Chapter 19 – General Technical Requirement, GIS	26.3.1. Portable Partial Discharge(PD) monitoring system	Please confirm the country of Origin / Make for Portable Partial Discharge(PD) monitoring system.	Please refer above
183	Vol 3: Price Schedule Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad	Note : 1) Bidder is required to quote prices in this Schedule for all the individual items/sub-items. 2.) The Prices of equipments are inclusive of type test charges 3.) BOQ given above is indicative only based on the scope of work as given in Employer's Requirements. The quantities mentioned above may undergo change during detailed engineering to meet the functional requirement and scope of work defined in Employer's Requirements. 4) Bidder shall quote the rates excluding taxes and duties applicable in Nepal like Custom, VAT etc., but shall include all taxes, duties outside Nepal and any applicable business taxes in Nepal like TDS (income tax) etc. Specify currency in accordance with BDS ITB Clause 32.1, Part-I of the Bidding Documents.	As per "point no. 2.) The Prices of equipments are inclusive of type test charges." Please confirm only the equipments mentioned in clause no. 2.5 Subcontractor of Section 3 - Evaluation and Qualification Criteria of Volume 1 of Bidding documents are applicable for Type test charges (if applicable)	Type test for all equipment is inclusive of type test charges. The type test if required for other equipment shall be performed without any extra cost to Employer.



S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
184	Vol 2 - PSR and Vol 3 : Schedule No. 4 : Installation and Other Services (Common for all) (b):Training Charges for training to be imparted abroad	<p>Training Allowance requirement mentioned in the the tender documents are different at 2 locations.</p> <p>13.0 SPECIFIC REQUIREMENT</p> <p>g) The Contractor shall impart the necessary training to NEA's Personnel as per following details:-</p> <p>i) Training at Manufacturer's works. The Contractor shall include in the training charges payment of per Diem allowance to NEA trainees @ as per NEA Financial Regulation per day per trainee for the duration of training abroad towards accommodation, meals and other incidental expenses and to and fro economy class air ticket from Nepal to place of training. The duration of training shall be excluding travelling period.</p> <p>And</p> <p>Vol 3, Schedule No. 4 : Installation and Other Services (Common for all)</p> <p>(b):Training Charges for training to be imparted abroad</p> <p>REMARKS:</p> <p>1. Training at Manufacturer's works: The Contractor shall include in the training charges payment of per Diem allowance to NEA trainees @ USD 100 per day per trainee for the duration of training abroad towards accommodation, meals and other incidental expenses and to and fro economy class air ticket from Nepal to place of training. The duration of training shall be excluding travelling period.</p>	<p>Bidder request to confirm NEA's Personnel Allowance @ USD 100 per day will be applicable as per mentioned in the Price schedule "Schedule No. 4 : Installation and Other Services (Common for all) (b):Training Charges for training to be imparted abroad ". And these Allowances will be calculated excluding any travelling days between countries.</p> <p>Please confirm the same.</p>	The allowance shall be as per the PSR. The allowance will be applicable for traveling time also.
185	Vol 3: Schedule No. 4 : Installation and Other Services (Common for all) (d): Maintenance Charges	<p>Schedule No. 4 : Installation and Other Services (Common for all)</p> <p>(d): Maintenance Charges</p>	<p>Since there is no detailed requirement mentioned in the tender documents hence "Schedule No. 4 : Installation and Other Services (Common for all) is not applicable for this bid. (d): Maintenance Charges " of Vol 3 is not applicable for this project. And Bidder understand Any Maintenance activity etc. scope is part of any other contract</p> <p>Please confirm our understanding is correct.</p>	

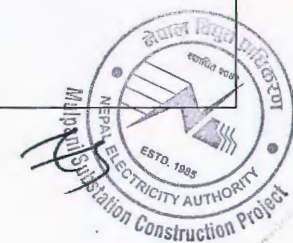


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Tender specification / Amendment / Clause	Description	Query	NEA Reply
186	Vol 3: Price Schedule	Order of Precedence. & Qty.	Bidder understand that in Order of precedence and the requirement of scope, the Price Schedule comes on top most Accordingly bidder has to quote as per Price Schedule and quantity mentioned. - Please confirm.	Confirm
187	Vol 3: Price Schedule Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad	G) Testing & Maintenance Equipment for GIS 1.1 SF6 Gas processing Unit - Set 1 1.2 Partial Discharge Monitoring System for 145kV GIS System as per Technical Specification, GIS - Set 1 1.3 Dew Point meter for 145kV GIS System - Set 1 1.4 SF6 Gas Leak Detector for 145kV GIS System - Set 1 1.6 SF6 Gas Analyzer - Set 1	Bidder request to confirm the country of Origin / Makes, so that competitive proposal shall be submitted.	Please refer the clarification above.
188	Vol 3: Price Schedule Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad and Vol 2 : PSR - VMS	G) Visual Monitoring System for watch & ward as per technical specification - LS 1 1. The operation of each and every isolator pole of the complete yard in case of AIS Sub-station. 2. The Operation of each bay bays of GIS Hall as Applicable. 3. All the Transformer and Reactors All the Entrance doors of Control Room Building and Fire-fighting Pump House, GIS Hall and Switchyard Panel room as applicable. 4. All the gates of switchyard. 5. Main entrance Gate 6. All other Major AIS Equipment (such as CB, CT, CVT, SA etc. as applicable) The cameras can be mounted on structures, buildings or any other suitable mounting arrangement to be provided by the contractor.	In the PSR of Vol 2 only Bidder request to define and confirm no. of Camera as per Layout Point 1) - It is not applicable because, it is GIS Substation Point 2) - Please confirm 2 nos. Bullet / Dome camera is sufficient to monitor each bay of GIS together in the GIS Room Point 3) - Transformer and Outside area will be equipped with Outdoor Type PTZ camera - 2 Nos., however inside the control room Bullet/ Dome type camera are sufficient for Control Room Building and Fire- fighting Pump House, GIS Hall and Switchyard Panel room Point 4) & 5) - Bullet/ Dome type camera are sufficient for All the gates of switchyard. and Main entrance Gate Point 6) - It is not applicable because, it is GIS Substation Please confirm our understanding is correct for right selection of qty. of camera.	Confirm. The VMS detail will decided during DDE



Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Clause No.	Existing Clause	Query	
189	Section 3 - Evaluation and Qualification Criteria 2.4 Bidder's Experience	2.4.1 Contracts of Similar Size and Nature Participation in at least 2 (two) Contracts that have been successfully or substantially completed within the last 10 (Ten) years and that are similar to the proposed Contract, where the value of the Bidder's participation under each Contract exceeds US\$ 8.37 Million. The similarity of the Bidder's participation shall be based on Design, Supply, Installation, Testing and Commissioning of 132 kV or higher voltage GIS Substations	In case of a project reference wherein End user has awarded separate contracts for Switchyard and Transformers for same Substation, Kindly confirm whether combined scope can be considered as under one contract for the purpose of qualification.	Shall be as per the Section III, EQC.

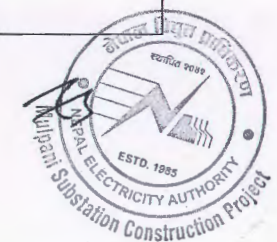


Procurement of Plant for Clarifications No.-2 - Design, Supply, Installation, Testing and Commissioning of Mulpani 132/11kV GIS

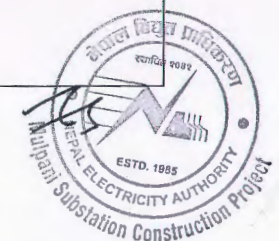
ICB: PMD/EGMP/MSCP-077/78-01

CLARIFICATION No.-1: ISSUED BY NEPAL ELECTRICITY AUTHORITY

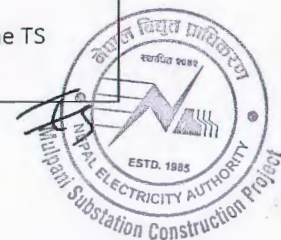
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
190	BOQ Communi- cation - Mulpani	S. 1.1.1		SDH quantity : 1 No	SDH is being asked only at 132kV Mulpani S/s, whereas integration is asked with existing SDH at Chapali & Bhaktapur S/s. Please provide the details of existing SDH type make & model number available at Chapali & Bhaktapur S/s	The existing communication equipment is of ABB make.
191	BOQ Communi- cation - Mulpani	J1		Digital Protection Coupler: 8 No's	We understand that this DTPC quantity is considering remote end as well, with the following distribution: 132kV S/s Mulpani: 4 Nos 132kV S/s Chapali: 2 Nos 132kV S/s Bhaktapur: 2 Nos Kindly confirm our understanding.	Confirm. Please provide as per the BPS
192	BOQ Communi- cation - Mulpani	Mandator y Spares		Digital Protection Coupler: 1 No's	We understand only 1 set DTPC is required as Spare, SDH spares are not required as it is not mentioned in BOQ. Pls confirm our understanding.	Confirm. Please provide as per the BPS
193	General				We Understand Our scope is limited to supply of equipment as per BOQ only.	Confirm. Please provide as per the BPS
194	General				Specifications of SDH system was not available in the enquiry documents, Kindly share the same.	Attached
195	Volume II			General	Clause 4 F and 4.1.17 are contradictory. Pls confirm whether the termination of 132 kv GIS is through SF6 to air Bushing or 132 kV Cables.	It is through 132kV Cables



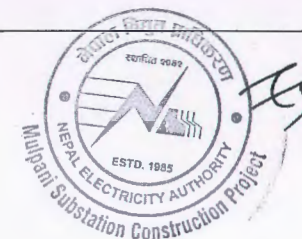
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
196	General Technical requirement GIS	3.9		The GIS assembly shall consist of separate modular compartments e.g. Circuit Breaker compartment, Bus bar compartment filled with SF6 Gas and separated by gas tight partitions so as to minimize risk to human life, allow ease of maintenance and limit the effects of gas leaks failures & internal arcs etc. These compartments shall be such that maintenance on one feeder may be performed without de-energising the adjacent feeders.	We confirm to meet the requirement in case of fault in circuit breaker compartment. However, we understand that in case of fault in Busbar associated compartments, momentary shutdown of bays adjacent to the affected bay shall be allowed. Pls confirm our understanding.	The design shall be as per the TS
197	General Technical requirement GIS	3.11		Due to safety requirement for working on this pressurized equipment, whenever the pressure of the adjacent gas compartment is reduced during maintenance, this compartment shall be designed so that it shall remain in service to perform its intended duty.	In view of safety of operating personnel, we as OEM, in line with IEC guideline do not recommend working on pressurised insulators. Hence, whenever a gas compartment is under maintenance at atmospheric pressure, the adjacent compartment, being at reduced pressure, shall be taken out of service as it cannot perform operation under reduced pressure.	The design shall be as per the TS



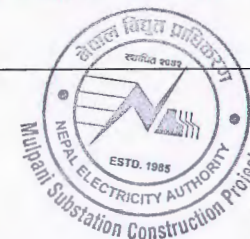
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
198	General Technical requirement GIS	3.11		The bus enclosure should be sectionalized in a manner that maintenance work on any bus disconnector (when bus and bus disconnector are enclosed in a single enclosure) can be carried out by isolating and evacuating the small effected section and not the entire bus	We can meet this requirement with single buffer compartment between bays where entire Bus will not have to be evacuated in case of maintenance, however, adjacent feeder shall be momentarily be taken out of service in biew of safety of operating personnel. Pls confirm our understanding.	The design shall be as per the TS
199	General Technical requirement GIS	3.32		The ladders and walkways shall be provided wherever necessary for access to the equipment	As per our design, we do not provide ladders/walkways as our offered product is accessible. If required, we can provide portable ladder. Pls confirm.	The design shall be as per the TS
200	General Technical requirement GIS	3.40		Indication and verification of switch positions: Indicators shall be provided on all circuit breakers, isolators and earth-switches, which shall clearly show whether the switches are open or closed.	Indicators shall be provided on Drive Box/Equipment.	The design shall be as per the TS
201	General Technical requirement GIS	3.45(10)		For the maintenance of GIB of one circuit, only that circuit shall be isolated	Understand this point is not applicable as the termination is through EHV cable. Pls confirm.	The design shall be as per the TS
202	General Technical requirement GIS	3.47		Extension of GIS	We understand that the provision of extension of GIS shall be provided on one side only. Pls confirm.	The design shall be as per the TS



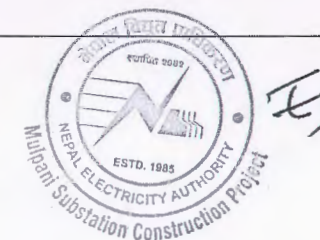
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
203	General Technical requirement GIS	3.48.1		Dial type temperature compensated gas density monitoring devices with associated pressure gauge will be provided. The devices shall provide continuous & automatic monitoring of gas density & a separate device shall be provided for each gas compartment so that each compartment can be monitored simultaneously	We understand that standard 2 stage density monitors are required to be provided against this requirement.	The design shall be as per the TS
204	General Technical requirement GIS	4.3 (6) & 4.5.4		Withstanding all dielectric stresses imposed on it in open condition at lock out pressure continuously (i.e. shall be designed for 2 p.u. across the breaker continuously, for validation of which a power frequency withstand test conducted for a duration of at least 15 minutes is acceptable).	We understand, the requirement is not as per IEC. Offered GIS circuit breaker shall be fully design & type tested as per IEC 62271-100. Hope the same shall be acceptable. Kindly confirm	The design shall be as per the TS



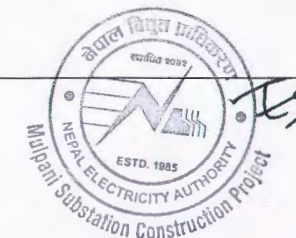
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
205	General Technical requirement GIS	4.5.7		Circuit Breaker shall be supplied with auxiliary switch having additional 8 NO(normally open) and 8 NC (normally closed) contacts for future use over and above those required for switchgear interlocking and other control and protection function. These spare NO and NC contacts shall be wired upto the local control cubicle	For requirement of NO/NC contacts above those required for switchgear shall be supplied loose as LCC shall not have enough space. Pls accept the same.	The design shall be as per the TS
206	General Technical requirement GIS	4.6.1 a)		The mechanism shall be housed in a dust proof cabinet and shall have IP: 42 degree of protection	The cabinet we offer has IP:51 degree of protection. Pls accept the same.	The design shall be as per the TS
207	General Technical requirement GIS	4.6.1 e		An operation counter shall also be provided.	Operation counter shall be provided in LCC as per our design feature. Pls confirm acceptance.	The design shall be as per the TS
208	General Technical requirement GIS	4.8		Additional data to be furnished during detailed engineering	These Documents being Intellectual property of OEM under IPR we shall not be able to submit the same during detail Engg. Pls accept.	The design shall be as per the TS
209	General Technical requirement GIS	4.9.1 (2)		The type test report of Electromagnetic Compatibility Test (EMC) of CSD shall be submitted for approval	Since our product design is such that the drives do not contain any electronic parts, we have not conducted EMC tests.	The design shall be as per the TS



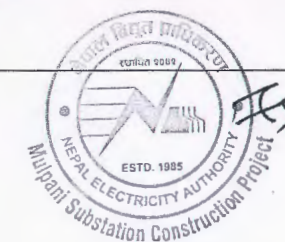
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
210	General Technical requirement GIS	5.2.19		Mechanical position indication shall be provided locally at each switch and Electrical indication at each Local Control Cabinet (LCC) / SAS.	We shall provide the same on drives.	The design shall be as per the TS
211	General Technical requirement GIS	6.8		All portions of the grounding switch and operating mechanism required for grounding shall be connected together utilizing flexible copper conductors having a minimum cross-sectional area of 100 sq. mm	In our offered GIS design, Earthing switches and its mechanism are connected via the enclosure i.e they make a continuous earthing path via enclosure itself and so is the case for all the componets. Further, the complete GIS is earthed / grounded at multiple points utilizing flat CU / GI bars. Pls confirm acceptance.	The design shall be as per the TS
212	General Technical requirement GIS	8.2.5 d		Voltage transformers secondary shall be protected by Miniature Circuit breakers (MCBs) with monitoring contacts for all the windings	We shall provide HRC cartridge type fuse for protection of secondary winding. Pls confir acceptability.	The design shall be as per the TS
213	General Technical requirement GIS	8.2.5 d		Voltage transformers secondary shall be protected by Miniature Circuit breakers (MCBs) with monitoring contacts for all the windings	The MCB shall be provided on LCC. Pls confirm acceptability.	The design shall be as per the TS



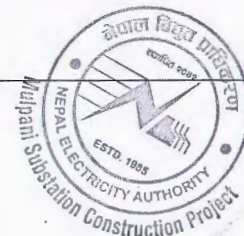
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
214	General Technical requirement GIS	13.2.6		Local control cubicles shall be provided to be free standing and shall be equipped with anti-condensation heaters. A suitable humidity stat and thermostat shall be included in the heater circuit.	As per clause 13.2.1, understand LCC can be integrated or free-standing. Pls confirm.	The design shall be as per the TS
215	General Technical requirement GIS	19		Type tests	Since reactor is not part of scope, we understand reactor switching test is not applicable in this project. Pls confirm.	The design shall be as per the TS
216	General Technical requirement GIS	25		On-site testing	Due to space constraints of setting up HV testing facility, we request you to accept soak test as an alternative. Pls confirm.	The design shall be as per the TS
217	Chapter 1 : Project Specification Requirement	4.1 ©		(d) Three (3) numbers of 1-phase potential transformers.	We understand that PT in line bays shall be without isolating link/isolator. Pls confirm.	The design shall be as per the TS
218	Annexure I			Rated line charging interrupting current at 90 deg. Leading power factor angle (A rms) (The breaker shall be able to interrupt the rated line charging current with test voltage immediately before opening equal to the product of	Our offered design is tested for 500 Amps requirement, which is more severe than 600A in capacitive current switching duty mentioned in IEC. Hence we request to please accept our submitted test reports	The design shall be as per the TS



SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
224	Section 3 - Evaluation and Qualification Criteria	2.5 Subcontractors (GIS iii)		However if the manufacturer has not conducted complete type tests in Short-Circuit Testing Liaison (STL) - Accredited Laboratory over last ten (10) years as on the originally scheduled date of bid opening, bidder has to submit undertaking letter along with bid to carry out the complete type test in Short-Circuit Testing Liaison (STL) - Accredited Laboratory from offered Manufacturer without any extra cost to Employer	Since we are offering same and exactly identical design of product as per type tests conducted by our parent/collaborator company, we do not envisage repetition of type tests for product being offered from Indian factory for this project. Pls confirm.	As per EQC. Parent company test report will not be accepted.
225	Section 3 - Evaluation and Qualification Criteria	2.5 Subcontractors (GIS iii)		Must have successfully carried out the complete type test as per IEC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on 132 kV voltage class GIS Switchgears	All major type tests on our offered product are conducted in STL laboratory, however, certain tests on passive elements like strength of enclosure and IP tests are performed in reputed laboratories with accreditation in respective countries. Understand the test reports from such laboratories shall also be acceptable. Pls confirm.	
226		CHAPTER-15: CONTROL AND RELAY PANELS, 10.2		LOCAL BREAKER BACK-UP PROTECTION SCHEME shall (j) be similar relays for complete scope of work as per specification	We understand that Breaker failure protection as in-built function of Bay Control Unit as mentioned in other parts of specification will be acceptable. Please confirm.	Confirm



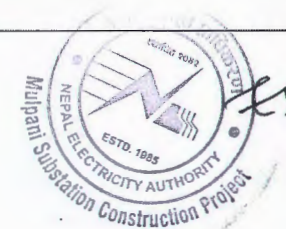
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
219	Annexure A	SLD			We understand that in case of cable termination of GIS bays, separate gas compartments are required for exit side disconnector and cable sealing end unit. Pls confirm.	The design shall be as per the TS
220				Proposed Layout	We understand that the termination of 132 kV GIS bays is via 132 kV HV Cable. Pls confirm.	Confirm
221	Chapter 1 : Project Specification Requirement	4.10 €		145kV, 1250A, 31.5kA for 1Sec, SF6 Gas insulated Bus Duct (GIB) for Line/Transformer feeder modules outside GIS hall (i.e. wall surface) with support structure	understand this clause is not applicable since the termination is through 132 kV Cable and GIS is not envisaged.	Confirm. If required shall be provided
222	Section 3 - Evaluation and Qualification Criteria	2.5 Subcontractors (GIS ii)		Out of supplied quantity, a minimum of half the bid quantity shall have been in operation satisfactorily to the end users for at least two (2) year.	We understand that minimum 7 nos bays shall have to be in operation satisfactorily to end users for at least two (2) years. Pls confirm.	As per EQC
223	Section 3 - Evaluation and Qualification Criteria	2.5 Subcontractors (GIS iii)		Must have successfully carried out the complete type test as per IEC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on 132 kV voltage class GIS Switchgears (Circuit Breaker, Disconnectors, Grounding Switches, etc;) within last 10 (Ten) Years as on the originally scheduled date of bid opening	We understand that in case of same and exactly identical design being offered from Indian manufacturing works, the type test reports of parent / collaborator company shall be acceptable. Pls confirm.	As per EQC. Parent company test report will not be accepted.



SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
227	CHAPTER-15: CONTROL AND RELAY PANELS, 26			BUS BAR PROTECTION	We understand that High Impedance type Busbar protection to be offered as per the protection SLD. Please confirm.	As per the TS
228	CHAPTER-15: CONTROL AND RELAY PANELS, 33			CONTROL PANEL	For Substations with Automation System, control and monitoring at bay level will be part of Local HMI of respective Bay Control Unit. Hence, conventional type control panels are not applicable. Please confirm.	Confirm
229	CHAPTER-15: CONTROL AND RELAY PANELS, 33			LINE PROTECTION PANEL (220kV and 132kV) 9. Cut-out and wiring with TTB for POWERGRID supplied energy meter	We understand that supply of Energy Meters are in the present scope. Please confirm.	Confirm
230	CHAPTER-15: CONTROL AND RELAY PANELS, 33			LINE PROTECTION PANEL (132kV) 10. Directional Back up Over current and E/F protection scheme: 1 Set	We understand that Numerical over current and earth fault protection as in-built function of Bay control unit will also be acceptable. Please confirm.	During DDE
231	CHAPTER-15: CONTROL AND RELAY PANELS, 33			a) BUSCOUPLER PANEL 2. Numerical Non Directional Over Current and Earth Fault Relay 1No.with High Set Feature and in built LBB protection(LBB function as part of DCU is acceptable). 1 No.	We understand that Numerical over current and earth fault protection as in-built function of Bay control unit will also be acceptable. Please confirm.	During DDE
232	CHAPTER-15: CONTROL AND RELAY PANELS, 33			TRANSFORMER PROTECTION PANEL (132/11kV) 8. Cut-out and wiring with TTB for energy meter	We understand that supply of Energy Meters are in the present scope. Please confirm.	Confirm

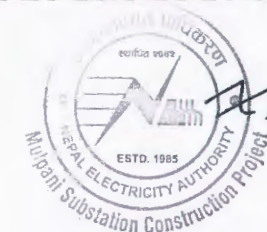


SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications
233	CHAPTER-15: CONTROL AND RELAY PANELS, 33			33kV Line Protection Panel	<p>There is no specification available for 33kV Line Protection. We understand Directional Over current and Earthfault protection to be offered for 33kV Line Feeder.</p> <p>We understand that over current and earth fault protection as in-built of Bay Control Unit will also be acceptable. Please confirm.</p>
234	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 2.2, Page 7-6			Typical SAS Architecture Diagram	<p>This architecture is not in-line with NEA specification and system requirement. This is also conflicting with the architecture diagram provided in page number 7-39. We understand that we need to refer the SAS architecture diagram as provided in page number 7-39 only. Please confirm.</p>



SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications
248	CHAPTER 1-Project Specification Requirement, 4.1.3			Complete relay and protection system as per section –Control and Relay panels including Bus Bar Protection for 132 kV Double Bus Bar Switching Scheme. Low Impedance numerical impedance relay with centralized type scheme is	Protection SLD calls for High Impedance type Busbar Protection, where as present clause of the specification calls for Low impedance type Busbar Protection. Please clarify the type of Busbar protection to be offered in the present scope. As per PSR
249	CHAPTER 1-Project Specification Requirement, 13.0			SPECIFIC REQUIREMENT k. One number each Energy meter for the record and revenue purpose is to be provided for each 132/11V bays (Bus coupler bays to be excluded) at Lapsephedi and Changunarayan substations under present scope of contract, meeting the requirement as specified at Annexure –	We understand that "Lapsephedi and Changunarayan substations" should be read as "Mulpani Substation". Please confirm. Confirm
250	BOQ Price Schedule - Spares			Indicating Lamps(50% of used) and Color Caps of each color for indicating lamps (30% of used) for 132/33kV CRP at Borang AIS Substation	We understand that these spare components are not applicable, as there is no requirement of conventional type control panels in the present scope. Please confirm. Please quote as per BPS. If not required during execution, will be deleted.
251	BOQ Price Schedule			H. RELAY PANELS (WITH AUTOMATION) 1.1. Line Control and Protection Panel with Differential / Distance Relay: 4 Nos. 1.2. Line Differential relays for adjacent	We understand that Line Differential protection relays to be offered for 132kV Line Bays instead of Line Distance protection. Please confirm. During DDE

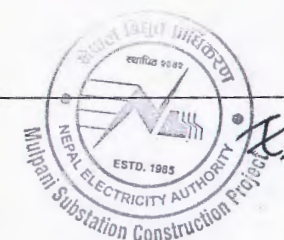
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications	
242	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 4.2.1, Page 7-22			Technical Parameters of BCU: 17. Additional ports : 1 X RS232 and 3 X RS485 can support IEC 103 Modbus, should be s/w configurable.	As per other parts of specification and technical requirements of a Bay Control Unit, there is no requirement of so many serial ports supporting legacy protocols like IEC103 and Modbus. We shall offer Bay control unit with one rear FO port on IEC61850 for remote communication. This is also in-line with earlier supplies to NEA. Please confirm your acceptance for the same.	As per TS
243	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM			TYPICAL ARCHITECTURAL DRAWING OF SUBSTATION AUTOMATION SYSTEM Note: 3. For gateway, it shall communicate with Remote Supervisory Control Centre (RSCC) on IEC 60870-5-	We understand that Gateway 1 and Gateway 2 as in-built function of Server 1 (Hot) and Server 2 (Standby) will also be acceptable. Please confirm.	As per TS. During DDE
244	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, Page 17-33			14.0 LIST OF EQUIPMENTS x) Remote workstation including HMI and along with one printer	Please clarify whether supply of Remote workstation including HMI and along with one printer is part of present scope or not.	Is in the scope and shall be decided during DDE.
245	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, Page 7-39			TYPICAL ARCHITECTURAL DRAWING OF SUBSTATION AUTOMATION SYSTEM Note: 3. For gateway, it shall communicate with Remote Supervisory Control Centre (RSCC) on IEC 60870-5-	We understand that Gateway 1 and Gateway 2 as in-built function of Server 1 (Hot) and Server 2 (Standby) will also be acceptable. Please confirm.	As per TS



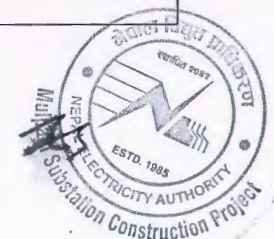
SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications
239	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 4.2.1, Page 7-21	Technical Parameters of BCU: 2. Protocol Capabilities: Ethernet based communication: Dual on →Board with dual I.P. addresses on IEC-61850 & upgradeable in future.		As per specification clause 2.2, the redundant connectivity between IEDs and Ethernet switches is not required. Hence the requirement of dual on board with dual IP address mentioned in this clause will not be applicable for this project. This is also in-line earlier supplies to NEA. Please confirm.	As per TS
240	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 4.2.1, Page 7-21	Technical Parameters of BCU: 10. Event Logging : Storage of events up to 2000 in ROM.		As per specification clause 3.1.1.1., BCU should support data storage for at least 200 events. We understand that "2000 events" mentioned in this clause is a typographical error and same should be read as "200 events". Please confirm. Our Bay Control Unit supports up to 1000 events storage. This is also in-line earlier supplies to NEA. Please confirm your acceptance for the same.	As per TS
241	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 4.2.1, Page 7-22	Technical Parameters of BCU: 16. Internal Ethernet : 4 X 10/100 Base T (RJ-45) ports+2X10/100 Base Switches Fx (optical) ports for redundant Ethernet network.		Please note that offering Integrated Ethernet Switch as part of IEDs will reduce the network availability as any fault in individual IED will result in non-availability of the complete network. So, request you to consider external Ethernet Switches as per the standard practice of all major utilities. As per the specification clause 4.1.5, One switch shall be provided to connect all IEDs for two bays of 220kV yard to communication infrastructure. This is also in-line with previous supplies to NEA. Present clause is conflicting with above referred clause. Hence we will be offering clause 4.1.5. Please confirm your acceptance for the same.	As per TS



SL.No	Volume	Clause No	Page No	As per BOQ	ABB Power Products and Systems India Limited (APPSIL) Clarifications
236	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 3.3.4,			Communication Protocol The communication protocol for gateway to control centre must be open protocol and shall support IEC 60870-5-101 and IEC 61850 for all levels of communication for sub-station automation such as Bay to station HMI, gateway to	We understand that IEC 60870-5-104 protocol as per new LDC system requirement. Please confirm.
237	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 3.3.4, Page 7-18			The telecontrol gateway shall interface up to 5 telecontrol centres, each with a possible link redundancy. It maintains a database per control centre.	We understand that the Gateway shall support up to 3 telecontrol centre considering NEA LDC requirements. i.e, LDC, MCC and Remote Control Centre. Please confirm.
238	CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 4.1.5,			Switched Ethernet Communication Infrastructure: The bidder shall provide the redundant switched optical Ethernet communication infrastructure for SAS. One switch shall be provided to connect all IEDs for two bays of 220kV yard to communication infrastructure. Each switch shall have at least two spare ports for connecting bay level IEDs and one spare port for connecting station	We propose below guideline for estimation of Bay level Ethernet Switches for 132kV and 11kV system. Please confirm. One switch shall be provided to connect all IEDs for every two bays of 220kV, every three bays of 132kV and one switch for all the bays of 11kV to communication infrastructure.



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235		CHAPTER 17: SUBSTATION AUTOMATION SYSTEM, 2.2, Page 7-6		<p>The SAS shall be bay oriented, i.e.:</p> <ul style="list-style-type: none">o Addition of a new feeder or transformer shall be an easy operation from a configuration and manufacturing point of view (copy of an existing model). The system interlocking shall be done by the mean of a topological interlocking, using the topology and expert rules to authorise or inhibit the switchgear operation. All these data will be exchanged between involved IED using the standard IEC61850 GOOSE or equivalent procedures.o Each bay has an autonomous behaviour, i.e. local control and interlocking, sequence of events, etc. It is connected to other bays by logical means for system wide functions, such as interlocking or Busbar protection, but can have a downgraded mode with complete protection and control of the local bay	<p>Please note that offering Integrated Ethernet Switch as part of IEDs will reduce the network availability as any fault in individual IED will result in non-availability of the complete network. So, request you to consider external Ethernet Switches as per the standard practice of all major utilities.</p> <p>As per the specification clause 4.1.5, One switch shall be provided to connect all IEDs for two bays of 220kV yard to communication infrastructure. Present clause if conflicting with referred clause. We understand that we need to refer clause 4.1.5 for Ethernet Switch qty calculation. Please confirm.</p>	Provide as per TS

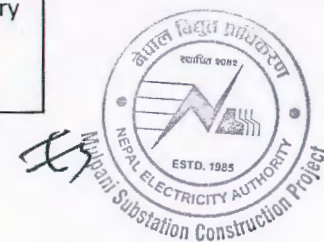


S.N.	Query	NEA Reply
263	According to the bidding document, the size of the 11 kV (Auxilliary building) is 15*20m, and the construction are in BOQ is 160 m ² . There is also a situation that the construction area of the security room in the bidding document is inconsistent with that is BOQ. Which one shall prevail, and please provide the drawings.	Please quote as per the BPS. Any variation during construction will be paid as per the rate available.
264	There are three dormitory building in the document. Please confirm it is required or not?	The control building, 11kV room and other building layout may vary during DDE. Please quote accordingly.
265	BOQ lacks site greening, fire protection walls, switchyard panel room, parking shed, demolition of original walls and other contents.	Please quote as per the BPS. All dismantling works required for the satisfactory execution of the works is in the scope of the contractor. No extra cost will be paid. Please refer PSR.
266	Please confirm whether the building and transformer foundation in the substation need to use pile foundation	Please refer PSR. To be decided during DDE after finalization of soil investigation.
267	Technical specification volume II -chapter 5 " two battery sets for each of 220 kV and 48 kV systems" is not BPS 220kV and 48V batteries 1 set please make it clear what the criteria are	Quote as per the BPS
268	chapter 1-project specific requirement (PSR), volume II	
	1. Bus bar module: three nos 1-phase inductive potential transformers, complete with isolator switch suitable for double bus arrangement	The PT, CT, LA and other equipment shall be 1 Phase or three phase as per the requirement of the proposed equipment, but generally comply with the TS.
	2. bus coupler: bay module: three nos. 1 -phase, 5 -core, multi-ratio, current transformers	
	3. Line feeder: bay module: three (3) numbers of 1-phase potential transformers. Three (3) number of 1-phase lightning arrestors.	
	4. ICT feeder bay module: three (3) numbers of 1-phase lightning arrestors.	
	The requirement of above in chapter 1 is conflict with chapter 19-general technical requirement, GIS. Three phase enclosed for 132 kV is required in chapter 19, so above item 1-4, manufacturer can only supply 3- phase CT, PT, and LA	



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ED BY NEPAL ELECTRICITY AUTHORITY

S.N.	Query	NEA Reply
254	There is no quantity of GIS branch busbars in BOQ	All busbar / bus ducts required shall be the part of the GIS.
255	There is no quantity of GIS bushing in BOQ.	All bushing / bus ducts required shall be the part of the GIS and cable termination arrangement. Please quote accordingly.
256	According to the number of buildings in BOQ, Should alternative proposed layout be used for substation layout?	The layout shall be decided during DDE, considering the soil conditions of the substation.
257	Please clarify the UHF based Partial Discharge measurement Sensors in GIS is online or offline.	The Partial Discharge Measurement sensors shall be online. As per TS.
258	Whether the 145kV, SF6 GIS Line Bay Module and 145kV, SF6 GIS ICT Feeder Bay Module for Transformer in BOQ should include the branch busbar inside the building	All busbar / bus ducts if required, shall be the part of the GIS.
259	Is AHU equipment required for this project?	AHU building and equipment is a part of GIS building. Please quote accordingly.
260	Please confirm if contractor should provide revenue energy meter for both substations, Lapsephedi and Changunarayan." One number each Energy meter for the record and revenue purpose is to be provided for each 132/11 kV bays (Bus coupler bays to be excluded) at Lapsephedi and Changunarayan substations under present scope of contract".	Revenue energy meters shall be for Mulpani substation only.
261	Please confirm whether a separate panel is required for the revenue energy meter.	Shall be part of the CRP of individual feeder bay.
262	GIS room and 11 kV switch room are included in the bidding drawing of the main control building, but the actual main control building don't include the aforesaid two rooms. The drawing is wrong. Please provide the actual size and drawing of the main control building.	The control building, 11kV room and other building layout may vary during DDE. Please quote accordingly.



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252	BOQ Price Schedule			3 COMMON SPARES 3.1 Power supply module for Bus Bar protection.	Since Power supply module are internal part of Numerical Bus Bar Protection relays, it is not possible to offer separately under spares. Please quote as per BPS. If not required during execution, will be deleted.
253	BOQ Price Schedule			3 COMMON SPARES 3.2 Bay unit module	Since the requirement is for a Low Impedance type Centralized Busbar protection / High Impedance type Busbar Protection, Bay unit module is not applicable. Please quote as per BPS. If not required during execution, will be deleted.

