

Nepal Electricity Authority

(Government of Nepal Undertaking)

Project Management Directorate

Electricity Grid Modernization Project-Additional Financing Chobhar Patan Chapagaun 132 kV Underground Transmission Line Project Matatirtha, Kathmandu

Ref No: CPCUGTLP- 080/81 Cha No 18

Date: August 23, 2023

To,
All Prospective Bidders.

Subject: **Issuance of Clarification-II**

Ref: Design, Supply, Installation, Testing and Commissioning of New Patan 132/66/11 kV GIS Substation (Package A1.2) (PMD/EGMPAF/CPCUGTLP-079/80-01)

Dear Sirs/Madams,

In reference to the captioned Bid published on July 05, 2023, we hereby attaching the Clarification-II sought by the bidders pursuant to Clause 7.1 of the bidding documents.

It is hereby requested to acknowledge the receipt of the same.

With Regards,

(Ukesh Shrestha)
Project Manager

Chobhar Patan Chapagaun 132kV Underground Transmission Line Project
Design, Supply, Installation, Testing and Commissioning of New Patan 132/66/11kV GIS Substation (Package A1.2)
OCB No.: PMD/EGMPAF/CPCUGTLP-079/80-01

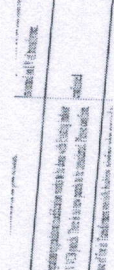
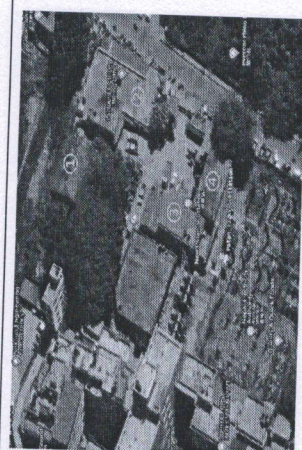
S.N.	Volume/Section	Clause No. / Description	Bidder's Query	NEA Reply
1	Volume - 2 - Part C	Cl.No.3.12 - Burn through period / The material and thickness of the enclosures shall be such as to withstand an internal flash over without burn through for a period of 300 ms at rated short time withstand current. 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.	We would like to inform that As per IEC 62271-203, Under table number 4 its is mentioned that for GIS with short circuit rating greater than or equal to 40kA rms duration of current shall be 0.3S(300ms) with no fragmentation (but burn through is acceptable) Please confirm.	As per bid document and relevant latest revision of IEC.
2	Volume - 2 - Part C	Cl.No.3.30 - Calculation / The enclosure shall be designed to practically eliminate the external electromagnetic field and thereby electro-dynamic stresses even under short circuit conditions. The average intensity of electromagnetic field shall not be more than 50 micro — Tesla on the surface of the enclosure. The contractor shall furnish all calculations and documents in support of the above during detailed engineering.	Being continuous enclosure design, available bonding connections for GIB and earthing connections of metal enclosures of GIS / GIB at min 2 points, all enclosure surfaces are equipotential. Hence no electromagnetic field appears on enclosure surfaces, hence calculations are not envisaged. However details of earthing / bonding connections and continuous enclosure construction can be submitted during DDE. Please confirm if its acceptable.	As per bid document.
3	Volume - 2 - Part C	Transformer	We would like to inform that there is discrepancy in CT data mentioned in SLD and GIS technical specification .we have considered the CT data as per SLD .	CT ratio shall be finalized during DDE.
4	Volume - 2 - Part C	Transformer	Please confirm if our understanding is correct.	
5	Volume - 2 - Part C	Transformer	We understand tertiary is stabilization (unloaded) or loaded, if loaded mention the capacity, fault level and impedances with tolerances of TV-HV at all tap positions, TV-LV.	Tertiary Winding shall be provided only if there is design requirement. Its not mandatory. However, necessary clarification shall be justified for the design without tertiary.
6	Volume - 2 - Part C	Transformer	Kindly provide us the neutral insulation level of HV winding for the proper selection of OLTC & bushing. Please, Confirm whether HV winding is graded or Fully insulated	As per bid document and design requirement
7	Clarification I	The bidder must acquaint with site	Kindly confirm the termination whether oil to SF6 or oil to oil in HV, LV winding.	As per bid document
8	Volume - 3, Price Schedule 1	E.7/ EOT crane for 132kV GIS Hall	Is it possible to arrange a site visit? In case if not, can you kindly send the point of contact for a guided site visit? Is it 5T Single Girder type	You can visit the site on your own.
9	Vol II(C), Section 23	ITEM No.10: 11kV XLPE POWER CABLES: 12 Short Circuit Current rating	The NEA REQ is > 20kA. In fact, there are three types of 11kV cables for this project: 3x185, 1x400, 1x800. According to the IEC60949 standard, the maximum short-circuit current of 185mm2 (Aluminum conductor) XLPE Cable is calculated to be 17.5kA/1s, 10.1kA/3s, 24.7pm 0.5s respectively, Please confirm the value.	Short Circuit current of 17.5 kA/1s, 10.1 kA/3s, 24.7 kA/0.5s for 185 mm 2 (Aluminum conductor) XLPE Cable can be accepted subject to the condition that relay setting shall be done by the Contractor in such a way that short circuit fault shall be cleared within 0.5 seconds.
10	Vol II(C), Section 23	ITEM No.11: 132kV XLPE POWER CABLES: 22 Short Circuit Current rating	The NEA REQ is 143kA. According to IEC60949 standard, the maximum short-circuit Current rating of 132kV 1x300mm2 (copper conductor) XLPE Cable is 42.9 kA/1s, and the maximum short-circuit current of metal shielded Metal screen (aluminum sheath) is 70kA/1s, Please confirm the value.	The maximum short-circuit Current rating of 132 kV 1x300 mm 2 (copper conductor) XLPE Cable is 42.9 kA/1s, and the maximum short-circuit current of metal shielded Metal screen (aluminum sheath) is 70kA/1s may be accepted.
11	Volume II C	TECHNICAL DATA SHEET ITEM No.1: 63MVA POWER TRANSFORMER ITEM No.2: 45MVA POWER TRANSFORMER 10.2 Hottest Spot Temperature in Winding Limited to	According to the "IEC 60076-2, section 6.2 Temperature rise limits at rated power, Table 1 – Temperature rise limits", the Hottest Spot Temperature Rise in Winding should be 13 °C (K) higher than the Temperature Rise in Winding by Resistance, so the required value here should be 55+13=68 °C (K), not 55 °C (K), please clarify.	Hottest Spot Temperature Rise in transformer Winding [3°C (K) higher than the Temperature Rise in Winding by Resistance [55+13=68 °C (K)] may be accepted.
12	Clarification I Item 29	ITEM No.1: 63MVA POWER TRANSFORMER ITEM No.2: 45MVA POWER TRANSFORMER 10.2 Hottest Spot Temperature in Winding Limited to	Please kindly provide the information of the 132kV Line Relay of the remote end. (1) Distance Protection or Current Differential Protection? (2) Brand, Type, Software Version, Operation period. (3) Scheme if available.	Refer to Clarification I point no 6. Furthermore, necessary electrical/optical connections/terminations at Chobhar S/S line protection relays and commissioning the relays at both ends required for protection of Chobhar Patan underground double circuit transmission line shall also be established by current bidder. The relays to be installed for protection of aforementioned line at New Patan SS shall be identical or compatible with relays installed at Chobhar SS.



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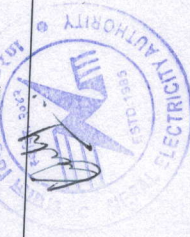
Commissioning of New Patan 132/66/11kV GIS Substation (Package A1.2)

S.N.	Volume/Section	Clause No. / Description	Bidder's Query	NEA Reply												
13	Clarification 1 Item 55	 Clause 55: The 3 nos. of 11kV incoming feeder bays of the 3 sets of 132/11kV transformers. The 3 nos. of 11kV switchgear cabinets should be new added and installed. If it is not agreed, please clarify your consideration about the 11kV incoming feeder bays of the 3 sets of 132/11kV transformers.	As our understanding, 3 nos. of 11kV switchgear cabinets should be new added and installed, so as to be the 11kV incoming feeder bays of the 3 sets of 132/11kV transformers. The 3 nos. of 11kV switchgear cabinets should be added in the BOQ list. Please confirm. If it is not agreed, please clarify your consideration about the 11kV incoming feeder bays of the 3 sets of 132/11kV transformers.	Replied through Clarification 1.												
14			Is there a spare cabinet for the existing 11kV distribution cabinet that meets the requirements of connecting the 11kV cables of three 132/11kV transformers in this phase? (For example, dismantling the 11kV feeders of the existing two 66/11kV transformers can provide access for the two 132/11kV transformers in this phase. How to connect the incoming lines of the remaining one 11kV transformer? Have you considered this?)	There are three incomers in existing 11 kV distribution cabinet.												
15		 ① Is it the Siroce to be demolished? ② ③ ④ What kind of buildings and does it need to be demolished? If ③ ④ is demolished, it can be used to lay cable tunnels.		Store building ① and other unused buildings are to be demolished. ② ③ ④ shall not be dismantled. Cable tunnels/trench required for line bay cables, transformer bay cables and LV power/control cable shall be designed and built inside GIS building and outside building as well.												
16			According to the preliminary investigation report, there are currently 23 11kV bays in operation. After the construction of the new 132kV GIS substation, the number of bays will reach 26. The later feedback on the collection report states that there is no place to add distribution cabinets in the 11kV distribution room, which is somewhat contradictory. Please provide an explanation.	Please see Clarification 1.												
17		12.1 Control Room Building All civil works including foundation, internal cable trenches, AWP windows, flooring, wall, roof, building joint etc all complete as per technical specifications and approved drawing but excluding excavation, PCC, RCC and Reinforcement steel which shall be measured and paid separately under respectively items of BPS, (Ground Floor + First Floor + Roof/Gate) <table><tr><td>Item</td><td>Unit</td><td>Quantity</td><td>Price</td></tr><tr><td>500mm</td><td>Sqm</td><td>500.00</td><td></td></tr></table>	Item	Unit	Quantity	Price	500mm	Sqm	500.00		After our calculation, 500mm for CRB and area for GIS PEB is not enough for the main control building and GIS PEB building. Can we modify the engineering quantity of this part to 560mm for CRB and increase for GIS PEB, please kindly consider the extra price in bidding and change the Price Schedule.	Optimized design with compact GIS Vendors, compact equipments, compact layout shall be proposed. Further, it shall be discussed during Detailed Engineering Design				
Item	Unit	Quantity	Price													
500mm	Sqm	500.00														
18		12.2 132/11kV GIS Hall All civil works related to Pre-Engineered 132/11kV GIS Hall to be supplied as per Schedule 1 including foundation, internal cable trench, excavation, PCC, RCC and Reinforcement are all complete to erect the buildings per approved drawing and Technical Specifications <table><tr><td>Item</td><td>Unit</td><td>Quantity</td><td>Price</td></tr><tr><td>132/11kV GIS Hall</td><td>Sqm</td><td>250.00</td><td></td></tr><tr><td>132/11kV GIS Hall</td><td>Sqm</td><td>35.00</td><td></td></tr></table>	Item	Unit	Quantity	Price	132/11kV GIS Hall	Sqm	250.00		132/11kV GIS Hall	Sqm	35.00		Due to the limited space of the site, we suggest not to build AHU, increase the area of GIS room and install fans on the wall of GIS room (without filtering function) to meet the conditions of safe operation of equipment. Please kindly delete AHU in the Price Schedule. If the Employer accepts the option of not building an AHU, please confirm that the fans in the GIS room do not have filtering functions.	As per Amendment 1.
Item	Unit	Quantity	Price													
132/11kV GIS Hall	Sqm	250.00														
132/11kV GIS Hall	Sqm	35.00														
19		Please confirm if this project requires piling, at the bidding stage, the liquefied soil layer could be considered in accordance with 7 meters, and the final amount of piling work is determined according to detailed geological survey data. If the amount of piling work exceeds the amount in the Price Schedule, the Employer will increase the amount of piling work and related concrete and steel reinforcement, and if the piling is not required, the Employer will delete the amount of piling work, and the price will be adjusted as the amount of work changes.	Please confirm if this project requires piling, at the bidding stage, the liquefied soil layer could be considered in accordance with 7 meters, and the final amount of piling work is determined according to detailed geological survey data. If the amount of piling work exceeds the amount in the Price Schedule, the Employer will increase the amount of piling work and related concrete and steel reinforcement, and if the piling is not required, the Employer will delete the amount of piling work, and the price will be adjusted as the amount of work changes.	Type of the foundations and requirement of piling, depth of piling shall be decided and designed by the Contractor during detailed execution of the project based on the results of geotechnical study to be carried out by the Contractor. If piles are required, payment will be done as per the unit rates to be quoted in the price schedule.												



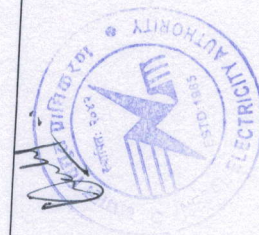
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20		Please confirm if the project adopts other foundation treatment methods(eg.sand compaction piles, vibration compaction, bentonite suspension grouting...etc) according to the detailed geological survey report, the corresponding work can be settled in cubic meters multiplied by the unit price of pile foundation.	Please confirm if the project adopts other foundation treatment methods(eg.sand compaction piles, vibration compaction, bentonite suspension grouting...etc) according to the detailed geological survey report, the corresponding work can be settled in cubic meters multiplied by the unit price of pile foundation.	Refer above. It shall be discussed and decided during DDE if required.
21	Vol-I	GCC Clause 10.2 / Employer Responsibilities - Handing over of Site and Right to way to the Site	We understand that in the event of delay in handover of Site due to delay by Employer under GCC Clause 10, we would be entitled to claim extension of time with costs under Clause 40 of the GCC.	As per bid document.
22	Vol-I	Section 8 - Special Conditions of Contract 7.3 / The Contractor agrees to supply spare parts for a period of years: 5 Years. 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.	(i) We will ensure to keep the availability of mandatory spares parts. However, we understand that time duration to do so needs to be practically feasible. Technology is continuously evolving and maintaining spares inventory for such a long period is not practical. Requesting NEA to change period from 5 years to 2 year from date DLP Period (ii) With respect to the requirement of sharing all drawing and technical information of spares – We can only share non-proprietary drawings. We can provide alternate source for the spares or provide the spares from another factory.	As per bid document
23	Vol-I	Section 7 - General Conditions of Contract, Clause 15.1 / License/ Use of Technical Information- For the operation and maintenance of the Plant, the Contractor hereby grants a non-exclusive and nontransferable license (without the right to sublicense) to the Employer under the patents, utility models, or other industrial property rights owned by the Contractor or by a third party from whom the Contractor has received the right to grant licenses thereunder, and shall also grant to the Employer a nonexclusive and non-transferable right (without the right to sublicense) to use the know-how and other technical information disclosed to the Employer under the Contract for the operation and maintenance of the Plant.	We propose following: For the operation and maintenance of the Plant, the Contractor hereby grants a non-exclusive and non-transferable license (without the right to sublicense) to the Employer under the patents, utility models, or other industrial property rights owned by the Contractor or by a third party from whom the Contractor has received the right to grant licenses thereunder, and shall also grant to the Employer a nonexclusive and non-transferable right (without the right to sublicense) to use the know-how and other technical information disclosed to the Employer under the Contract for the operation and maintenance of the Plant.	No change will be made in GCC and SCC of the bidding document.
24	Vol-I	Section 7 - General Conditions of Contract, Clause 15.2 / The copyright in all drawings, documents, and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. However, the Employer shall be obligated to use such drawings, documents and other material for the intended purpose only and shall indemnify and keep Contractor indemnified against any losses, claims, damages, penalty and compensation arising out of or in connection thereto.	We propose following: The copyright in all drawings, documents, and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. However, the Employer shall be obligated to use such drawings, documents and other material for the intended purpose only and shall indemnify and keep Contractor indemnified against any losses, claims, damages, penalty and compensation arising out of or in connection thereto.	No change will be made in GCC and SCC of the bidding document.
25	Vol-I	Section 7 - General Conditions of Contract, Clause 16 / Confidential Information	We understand that in absence of any specified protection-period, the obligation of confidentiality shall survive for 2 years. Please confirm	As per bid document



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26	Vol-I	Section 7 - General Conditions of Contract, Clause 20.3.1 / The Contractor shall prepare or cause its Subcontractors to prepare, and furnish to the Project Manager the documents listed in the Appendix (List of Documents for Approval or Review) to the Contract Agreement for its approval or review as specified and in accordance with the requirements of GCC Subclause 18.2 (Program of Performance).	The Contractor shall not share any proprietary information, drawings, designs etc., produced or developed by the contractor for this Project. Requesting NEA to amend the clause accordingly.	As per bid document
27	Vol-I	Section 7 - General Conditions of Contract, Clause 21.2.2 / Upon receipt of such item, the Contractor shall inspect the same visually and notify the Project Manager of any detected shortage, defect, or default. The Employer shall immediately remedy any shortage, defect, or default, or the Contractor shall, if practicable and possible, at the request of the Employer, remedy such shortage, defect, or default at the Employer's cost and expense.	We understand that there shall be no employer supplied material under this contract and hence this clause shall not be applicable. However if Employer supplied material, we understand that Time for Completion shall be extended accordingly in the event of delay on account of the Employer as per clause 40.1 (e).	As per bid document
28	Vol-I	Section 7 - General Conditions of Contract, Clause 22.6 / If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer.	We Propose following: If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable actual costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer.	No change will be made in GCC and SCC of the bidding document.
29	Vol-I	Section 7 - General Conditions of Contract, Clause 27.2 & SCC 27.0 / The Defect Liability Period shall be 540 days from the date of Completion of the Facilities (or any part thereof) or 1 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 Subclause 27.10 -SCC 27.0 - The critical components covered under the extended defect liability are GIS system, XLPE cable, Cable Sealing/Termination Ends, Power Transformers, CRP & Substation Automation System (SAS) and the period shall be 3(three) years.	As per our understanding, defect liability period for GIS system, XLPE cable, Cable Sealing/Termination Ends, Power Transformers, CRP & Substation Automation System (SAS) are 3 years from commissioning of each bay & rest of equipments are 12 months from date of commissioning of Each bay . Please confirm our understand is correct	As per bid document
30	Vol-I	Section 7 - General Conditions of Contract, Clause 27.8 / If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons.	We request that warranty for replaced items shall have a cut-off date beyond which all obligations of Contractor for warranty shall cease to exist. The existing clause may result in evergreen warranty obligations for contractor.	As per bid document



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31	Vol-I	Section 7 - General Conditions of Contract, Clause 27.9 / Except as provided in GCC Clauses 27 and 33, the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, criminal, or willful action of the Contractor.	We propose following: Except as provided in GCC Clauses 27 and 33, the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Facilities or any part thereof, the Plant, design, or engineering, or work executed that appear after Completion of the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, criminal, or willful misconduct action of the Contractor. Willful action needs to be changed to willful misconduct. Definition should be as provided below: 1.1 "Willful Misconduct" means, on the part of a Party's Managerial or Senior Supervisory Personnel, an intentional and wrongful act, or an intentional and wrongful omission of some act, in either case with the intent to inflict damage or injury. 1.2 "Managerial or Senior Supervisory Personnel" means any person employed by a party that is not an hourly worker, clerk, craft labourer, mechanic, foreman, subcontractor, engineer, inspector, Technical Advisor ("TA"), TA Site Manager, Customer Performance Manager, first level of managerial or supervisory personnel, or Senior Supervisory Personnel, an intentional and wrongful act, or an intentional and wrongful omission of some act, in either case with the intent to inflict damage or injury.	No change will be made in GCC and SCC of the bidding document.
32	Vol-I	Section 7 - General Conditions of Contract, Clause 29.1 / Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Contractor, pursuant to the Contract Agreement.	Please add the below to clause 29.1: Notwithstanding anything contained in the Contract, the Contractor shall have no obligation or liability with respect to any Claim based upon (a) Products or Services that have been modified, or revised, (b) failure of Employer to implement any update provided by Contractor that would have prevented the Claim, or (c) Products or Services made or performed to Employer's specifications. For avoidance of any doubt each party shall retain ownership of all confidential information and intellectual property it had prior to the contract. All rights in and to products not expressly granted to Employer are reserved by contractor. All new intellectual property conceived or created by contractor in the performance of this contract, whether alone or with any contribution from Employer, shall be owned exclusively by contractor. Employer agrees to deliver assignment documentation as necessary to achieve that result.	No change will be made in GCC and SCC of the bidding document.



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33	Vol-I	Section 7 - General Conditions of Contract, Clause 30.1(b) / The aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the amount resulting from the application of the multiplier specified in the SCC, to the Contract Price or, if a multiplier is not so specified, the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Employer with respect to patent infringement.	We propose following: The aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the amount resulting from the application of the multiplier specified in the SCC, to the Contract Price or, if a multiplier is not so specified, the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Employer with respect to patent infringement. There should not be exceptions to the limit of liability for the cost of repairing and replacing defective equipment. This should be a part of the limitation of liability. Please modify. The terms Gross Negligence and Willful Misconduct shall have following meaning: 1.3 "Gross Negligence" means tortious acts or omissions by Seller's Managerial or Supervisory Personnel, well in excess of negligence and amounting to an intentional disregard of a grave, known risk, where such disregard constitutes an extreme deviation from even minimal care. 1.4 "Willful Misconduct" means, on the part of a Party's Managerial or Senior Supervisory Personnel, an intentional and wrongful act, or an intentional and wrongful omission of some act, in either case with the intent to inflict damage or injury.	No change will be made in GCC and SCC of the bidding document.
34	Vol-I	Section 7 - General Conditions of Contract, Clause 33.1 / The Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any Third party or loss of or damage to any third party property, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents.	We Propose following: The Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any Third party or loss of or damage to any third party property, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents. Please add the following as Clause 33.1: Employer (as an "indemnifying party") shall indemnify the contractor (as an "indemnified party") from and against claims brought by a third party, on account of personal injury or damage to the third party's tangible property, to the extent caused by the negligence of the indemnifying party in connection with this contract. In the event the injury or damage is caused by joint or concurrent negligence of the Employer and contractor, the loss or expense shall be borne by each party in proportion to its degree of negligence. For purposes of contractor's indemnity obligation, no part of the products or site is considered third party property.	No change will be made in GCC and SCC of the bidding document.
35	Vol-I	Section 7 - General Conditions of Contract, Clause 34.1 / To the extent specified in the Appendix (Insurance Requirements) to the Contract Agreement, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified in the said Appendix. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, who should not unreasonably withhold such approval.	To the extent specified in the Appendix (Insurance Requirements) to the Contract Agreement, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified in the said Appendix. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, who should not unreasonably withhold such approval.	No change will be made in GCC and SCC of the bidding document.



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S.N.	Volume/Section	Clause No. / Description	Bidder's Query	As per bid document	NEA Reply
36	Vol-I	Section 7 - General Conditions of Contract, Clause 34.1 (b) / Covering physical loss or damage to the Facilities at the Site, occurring prior to Completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the Defect Liability Period while the Contractor is on the Site for the purpose of performing its obligations during the Defect Liability Period.	As upon completion of switchyard all the installation activities shall be over and considering the same we propose that Installation all risks insurance will be effective till TOC, beyond that it should be covered under client's property insurance. Please confirm.	As per bid document	
37	Vol-I	Section 7 - General Conditions of Contract, Clause 34.1 (c) / Third Party Liability Insurance Covering bodily injury or death suffered by third parties including the Employer's personnel, and loss of or damage to property occurring in connection with the supply and installation of the Facilities.	As Employee's personnel shall be covered in Employee's own insurance program, we request to amend the clause as below: Third Party Liability Insurance Covering bodily injury or death suffered by third parties including the Employer's personnel, and loss of or damage to property occurring in connection with the supply and installation of the Facilities.	No change will be made in GCC and SCC of the bidding document.	
38	Vol-I	Section 7 - General Conditions of Contract, Clause 34.1 (f) / Employer's Liability In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed	Kindly specify the statutory requirements if any.	As per bid document	
39	Vol-I	Section 7 - General Conditions of Contract, Clause 34.5 / The Employer shall at its expense take out and maintain in effect during the performance of the Contract those insurances specified in the Appendix (Insurance Requirements) to the Contract Agreement, in the sums and with the deductibles and other conditions specified in the said Appendix.	Please specify the amount of deductibles.	As per bid document	
40	Vol-I	ITB Clause 34.1 (b) / Detailed Evaluation of Technical Bids	We will supply spares parts as per list and quantity given in the price schedule only. No other spares shall be in our scope. Please confirm. If any additional spares required kindly provide list.	As per bid requirement.	
41	Vol-I	Section 7 - General Conditions of Contract, Clause 41 & 42 / Suspension and Termination	There is no recourse available to the Contractor for Suspension/ termination in case of non-payment or delayed payment. This is onerous. We request that the Contractor shall be entitled to suspend/ terminate the agreement for non-payment or delayed payment of amounts due to it under the Contract. Please add the following at the end of the Clause:	As per bid document	
42	Vol-I	Section 7 - General Conditions of Contract, Clause 43 / Neither the Employer nor the Contractor shall, without the express prior written consent of the other party (which consent shall not be unreasonably withheld), assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder.	Nothing herein shall affect the right of the Contractor to assign receivable under the Contract by way of factoring.	No change will be made in GCC and SCC of the bidding document.	
43	Vol-I	Appendix 3 - Insurance Requirements (A) Insurances To Be Taken Out By The Contractor / In accordance with the provisions of GCC Clause 34, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.	In accordance with the provisions of GCC Clause 34, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.	No change will be made in GCC and SCC of the bidding document.	



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S.N.	Volume/Section	Clause No. / Description	Bidder's Query	NEA Reply
44	Vol-I	Appendix 3 - Insurance Requirements (a) Cargo Insurance / (*) Excess 5% of claimed amount subject to minimum of NRs. 20,000 or its equivalent for Normal and NRs. 80,000 or its equivalent for act of God perils and collapse.	We request NEA to delete the foot note: (*). Excess 5% of claimed amount subject to minimum of NRs. 20,000 or its equivalent for Normal and NRs. 80,000 or its equivalent for act of God perils and collapse.	No change will be made in GCC and SCC of the bidding document.
45	Vol-I	Appendix 3 - Insurance Requirements (b) Installation All Risks Insurance / Installation All Risks Insurance Covering physical loss or damage to the Facilities at the Site, occurring prior to completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the defect liability period while the Contractor is on the Site for the purpose of performing its obligations during the defect liability period	As upon completion of switchyard all the installation activities shall be over and considering the same we propose that Installation all risks insurance will be effective till TOC, beyond that it should be covered under client's property insurance. Please confirm.	As per bid document
46	Vol-I	Appendix 3 - Insurance Requirements (b) Installation All Risks Insurance / (*) Excess 5% of claimed amount subject to minimum of NRs. 10,000 or its equivalent for Normal and NRs. 30,000 or its equivalent for testing period.	We request NEA to delete the foot note: (*). Excess 5% of claimed amount subject to minimum of NRs. 10,000 or its equivalent for Normal and NRs. 30,000 or its equivalent for testing period and collapse.	No change will be made in GCC and SCC of the bidding document.
47	Vol-I	General / New Clause- No Nuclear use	The Owner shall confirm that the products/goods and services provided under this contract shall not be used in connection with any nuclear plant or nuclear use. Any such use shall be in fundamental breach of this agreement. Please confirm.	As per bid document
48	Vol-I	General / SAFETY	Contractor has no responsibility or liability for the pre-existing condition of Employer's equipment or the Site. Prior to Contractor starting any work at Site, Employer will provide documentation that identifies the presence and condition of any Hazardous Materials existing in or about Employer's equipment or the Site that Contractor may encounter while performing under this Contract. Employer shall disclose to Contractor industrial hygiene and environmental monitoring data regarding conditions that may affect Contractor's work or personnel at the Site. Employer shall keep Contractor informed of changes in any such conditions	As per bid document
49	Vol-I	General / GENERAL INDEMNITY	Employer (as an "Indemnifying Party") shall indemnify the Contractor (as an "Indemnified Party") from and against claims brought by a third party, on account of personal injury or damage to the third party's tangible property, to the extent caused by the negligence of the Indemnifying Party in connection with this Contract. In the event the injury or damage is caused by joint or concurrent negligence of Employer and Contractor, the loss or expense shall be borne by each party in proportion to its degree of negligence. For purposes of Contractor's indemnity obligation, no part of the Products or Site is considered third party property.	As per bid document
50	Vol-I	SCC 26.0 / Completion Time Guarantee	Request for revision in the clause : Applicable rate for liquidated damages: 0.05 % per day of delayed portion of Contract Price and maximum upto 5% of contract value	As per bid document
51	GENERAL		Kindly furnish the sub-station layouts & Elevation Plan and provide the dimensional layout of GIS and Transformer for entire scope	
52	Vol-2	Annexure -IV / Visual Monitoring system	We assumed that VMS shall be considered only for the proposed scope of work and shall not required for existing 66KV substation. Kindly confirm that bidders understand is correct	GA layout and tentative elevation is provided in bid document. The bidder shall propose the compact design for entire scope in technical proposal. As per bid document
53	Vol-2 Part C	Technical Data Sheet-Transformer- Item No 11.3 / Tertiary Winding (if Provided) Delta	Please confirm, if tertiary winding is mandatory in proposed transformers of 63 MVA and 45 MVA.	
54	GENERAL	Shutdown Availability	In view of the complexity of work . request you to please confirm the shutdown availability & Schedule.	Tertiary Winding shall be provided only if there is design requirement. Its not mandatory. However, necessary clarification shall be justified for the design without tertiary. Shutdown required shall be optimized and clarified/justified prior formal application by contractor. The valid justified request of shutdown shall be requested to relevant utility and necessary support from Project shall be provided.



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55	GENERAL	Dismantled Equipment	We would like to inform that dismantled equipment in unpacked condition shall be handed over to NEA. Please also confirm the designated place or transport distance (approx) from Patan Sub-station.	The equipments shall be handed in good condition to place designated by representative/Engineer approx 4-15 km inside Kathmandu Valley.
56	GENERAL		We request you to please provide the earth resistivity Report through GIB or EHV cables.	As per bid document
57	GENERAL		Technical spec of DG Set, EOT crane, A.C. Oil storage tank are missing. Please provide same.	As per bid document.
58	General	Site visit clarification	At present total 6 No. (single phase unit for 2 bays) 66/11kV Transformers are installed at site. However, on the way (near control room) 2x 66kV /11kV transformers are (Schneider make) lying. Request you to please clarify.	As per bid document.
59	General	Site visit clarification	We have seen that near existing transformer newly foundation has been built in middle of the Rail cum Road (On going work), this is to inform that these foundations will be obstruct to remove existing transformers & installation of new transformers. We request you to please clarify.	All 66/11 kV transformers shall be dismantled and handed over in good/working condition.
60	General	Site visit clarification	We request you to please share the existing 66/11kV Transformer layout to check the feasibility of accommodation of new 2x51.5/63 MVA 132/66kV Transformers.	As per bid document.
61	General	Site visit clarification	At present existing switchyard is 66kV rating, however under this project it is requested to supply & install 2x 51.5/63 MVA transformer of rating of 132/66kV after removal of existing transformers. Kindly share the cable route & arrangement for 132kV XLPE from GIS to Transformers.	Please acquaint with the site accordingly.
62	General	Site visit clarification	During site visit we came to know that existing 11kV line feeders (15-16 cables) are buried under existing road after excavation (work recently done). These cables need to be shifted as RCC road to be constructed. Hence request you to please confirm the planned / proposed route for these cables.	Cable trench/tunnel shall be built accommodating necessary cables.
63	GENERAL	Site visit clarification / Existing & proposed 11kV cables route.	We have seen some electric pole are in the proposed area for construction of 132kV GIS SS & may need to be shifted. Hence request you to please provide the new locations with existing & proposed cable route. Please also confirm the shutdown availability & alternative arrangement for shifting.	These cables shall be shifted nearby old 66/11 kV control room if required. Necessary cable tunnel/trench accommodating EHV cables/LV cables shall be built.
64	Ch-1 /PSR	clause 4 ii), 9 / Any communication structure /electric pole /cables / drainage system/other any structure	We request you to please confirm the designated place or approx distance from patan substation for storage of these dismantled metals/ equipments.	shall be discussed during DDE.
65	Ch-1 /PSR	clause 4 ii), 9 / All dismantled metal works shall be stored at designated place	By meaning of "unused structures" are the old buildings & facilities in that area. Please confirm our understating is correct?	Steel Structures of old Crane/Equipments/stock material from site shall be handed over to Representative/Engineer to place approx 4-6 km of distance.
66	Ch-1 /PSR	Clause 4 iii), CIVIL Works- Construction of 132kV GIS room, Point 2 / Foundation for structures of LM, L.A, 132kV/66kV XLPE cable termination, equipment support structures, gantry structures and other equipment's after dismantling the existing foundation of unused structures.		Any structure working currently which needs to be dismantled for completion of scope of work is the unused structure.
67	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room, Point 6 /Switch yard Roads: All roads shall be RCC Roads as shown in GA drawing including culverts.	Construction of roads inside the Sub-station are not clear as per layout drawing & details are incomplete, hence we request to share for the RCC roads & RCC road cum rail layout or mark in the existing layout.	shall be discussed during DDE.
68	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room, Point 7 / 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 strengthening/ repair of approach road is only inside the sub-station not outside of the sub-station. Please clarify.	As per bid document.
69	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room, Point 9 / Switch yard Chain link fencing and gates	We understand scope is only for new 132kV GIS sub-station area. Kindly confirm.	As per bid document.
70	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room, Point 10 / Contouring and site leveling: The leveling in the area under the scope of work inside substation boundary wall is to be carried out to achieve finished ground level.	Kindly confirm the requirement of finished ground level.	As per Detail Design Engineering



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71	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room , Point 11 / Construction of random rubble stone masonry wall and gabion wall (if required).	Scope & quantity not clear, kindly confirm the requirement & mark in the layout for better understanding.	As per bid document.
72	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room , Point 12 / Drain and culverts, Drain Layout shall be developed by the contractor based on various type of drains. Existing old drainage system beneath the ground shall be noted and necessary shifting may be carried out without causing any damage on it and it shall function as previously. 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.	We understand that development of drains & culverts for the New 132kV GIS SS. Kindly confirm. However, for shifting of existing old drainage system beneath the ground is not clear as per site visit, hence to assessment of scope of work, kindly arrange the layout of existing draining under this scope of work.	shall be discussed during DDE.
73	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room , Point 13 / Boundary wall along substation property line and main gate	This is a major requirement & challenging as existing boundary wall attached with other properties, hence request you to please clarify the actual requirements. We also request you to please mark the requirement in the layout.	shall be discussed during DDE.
74	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room , Point 18 & 19 / 18. External water supply arrangement for control room cum administrative building. 19. External sewerage system for control room cum administrative building.	Water Supply - Kindly confirm the existing tapping point for water connection for control room cum administrative building. Sewerage system- Kindly confirm the route of existing sewerage system & main sewerage point in the sub-station.	shall be discussed during DDE.
75	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room , Point 21 / Dismantling and disposal of existing fencing walls, Dismantling/Removing of existing structures, foundation, equipment etc., if required, shall be included with the bid prices elsewhere in the price schedule and no separate payment will be made for such works	Request you please kindly clarify the dismantling of existing wall (Please mark in the Layout). We understand dismantling / removing of existing structures are the existing building/ store etc. kindly confirm.	shall be discussed during DDE.
76	Ch-1 /PSR	clause 4 iii), CIVIL Works- Construction of 132kV GIS room , Point 22 /Dismantling and removal of 66/11kV Power transformer and associated accessories/structures. Its cost shall be included with the installation cost of 132/66 kV transformer in same place. The transformers required for removal shall be handed and transported over to relevant authority at place within Kathmandu Valley designated by the Engineer in good condition.	Request you to please confirm the shifting / transportation approx distance from the patan sub-station.	Please refer Clarification II S. No. 55
77	Ch-1 /PSR	clause 4 iv) b, Modification / Dismantling work at Patan Sub-station /The Contractor shall also be responsible for the overall co-ordination with internal/external agencies;	Please confirm the name of internal & external agencies for co-ordination.	Relevant utilities including NEA.
78	Ch-1 /PSR	CHAPTER 1-Project Specification Requirement / ii. Air Insulated Switchgear (AIS) and other main equipments 4. Integration/upgradation/modification of existing Sub-station automation system (SAS) with new SAS under this scope including complete hardware and software along with associated equipment for 132kV, 66 kV & 11 kV bays as per Single line diagram (bay as defined in Technical Specification, Section - Substation Automation). The new SAS system in this scope of work shall be interconnected with existing under construction SAS system at New Patan so that the data/operation can be performed from single location. Further, the contractor shall also supply necessary BCUs for monitoring & control of Auxiliary system. SAS panels required shall be placed in control room. Further, the automation system for all bays shall have provision for future integration of one (1) number of protection IEDs per feeder bays.	1. We understand, we need to supply New SAS system for controlling the 132KV Bays and it shall be located at 132KV Control Room. 2. 132KV New SAS System needs to be integrated with the existing SAS which is located at 66KV Control Room. 3. We propose as there is a existing SAS System at 66KV and it can accommodate the new 132KV Bays, there would not be any separate SAS for 132KV bays. Hence requesting NEA to Remove the supply of new SAS and considered integration with Existing SAS only	shall be discussed during DDE.



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S.N.	Volume/Section	Clause No. / Description	Bidder's Query	NEA Reply
79		SUBSTATION AUTOMATION / Main Bays to be Automated 1. 132 KV Bays - 12 Nos 2. 66KV Bays - 1 Lot 3. 11KV Bays - 1 Lot	We understand the automation of 66KV and the 11KV Bays are already covered in the scope of other Project. Hence the same is not applicable in the current project. If incase 66KV and 11KV Needs to be considered for augmentation. Please let us know the number of Bays to be considered for 66 and 11KV	The current scope of SAS shall have centralized control for operation of entire 132 kV, 66 kV and 11 kV and other systems as per bid document. Existing SAS shall be locked for operation and be closed virtually.
80	Ch-1 /PSR	Protection Panel of 132/66 kV Transformer	It is mentioned that for the protection of 132/66 kV transformer, existing 66/11 kV transformer protection panel shall be replaced with the new 132/66 kV protection panels. Our query is that it would be better to be placed in 132 kV Control Room Building along with 132/11 kV Transformer Protection Panels?	As far there is availability of space in New CRB building, it shall be placed there. However, if space doesn't justify it shall be replaced to existing 66/11 kV transformer control and protection panels
81	Vol II (A) CHAPTER I- Project Specification Requirement	1. GENERAL Nepal Electricity Authority is intending to upgrade existing New Patan Substation into 132/66/11kV Gas Insulated substation at Lagankhel, Lalipur. It will be connected to Chobhar Substation (under construction) at 132 kV level. Existing New Patan Substation is connected to Baneshwor Substation and Siuchatar Substation at 66 kV level.	Whether the protection of underground line at Chobhar S/S is scope of work of the contractor? kindly provide the brand and type of the differential protection relay at Chobhar S/S (Under construction).	Refer to Clarification I point no 6. Furthermore, necessary electrical/optical connections/terminations at Chobhar S/S line protection relays and commissioning the relays at both ends required for protection of Chobhar Patan underground double circuit transmission line shall also be established by current bidder. The relays to be installed for protection of aforementioned line at New Patan SS shall be identical or compatible with relays installed at Chobhar SS.
82	Ch-1 /PSR	CHAPTER 1-Project Specification Requirement / 9. SPECIFIC REQUIREMENT 10.3 Augmentation and integration work related to SCADA System The 132/66/11kV bays under present scope at the substations shall be integrated by the contractor into existing SCADA system of Siemens 'SINAUT Spectrum' (version 4.3.2) installed at Master Station i.e. Nepal Electricity Authority LDC, Load Dispatch Centre (located in Siuchatar, Kathmandu) and ECC (Emergency Control Center) at Hetauda.	Requesting NEA to remove the integration of Siemens Sinaut Spectrum augmentation from the scope and get the integration directly from Siemens. We understand Patan is getting connected to MCC which is coming up in Kathmandu, Do we need to consider the integration of the 132KV Bays with the MCC.	As per bid requirement. Integration with MCC is required.
83	GIS-TS	CI.No.3.8 / GIS compartment: 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.	We would like to inform that by our Design virtue Circuit breaker and current transformer situated in same compartment. This design is successfully Type tested as per IEC standard and globally accepted and DS with ES will be in Mainbus compartment. We can meet your Maintenance, Repair and Extension requirement. Kindly accept the same.	As per bid requirement.
84	GIS-TS	CI.No.3.36 Alarm signal / Alarm circuit shall not respond to faults for momentary conditions. The following indications including those required elsewhere in the specifications shall be generally provided in the alarm and indication circuits. Gas Insulating System: i) Loss of Gas Density. Loss of Heater power (if required) iii) Any other alarm necessary to indicate deterioration of the gas insulating system.	We would like inform that Signal for Gas density reduction are wired up to LCC with suitable annunciation. No additional alarm is necessary for gas deterioration apart from gas density signal. Kindly accept the same.	Common practice is gas density reduction alarm from density monitor (SF6 low, gas refill, zone trip etc.). For gas deterioration, PD measurement monitor in routine basis or online may be considered. Shall be discussed during DDE.
85	GIS-TS	CI.No.3.42 Pressure vessel requirement / The enclosure shall be designed for the mechanical and thermal loads to which it is subjected in service. The enclosure shall be manufactured and tested according to the pressure vessel code (ASME/CENELEC code for pressure Vessel.)	We would like to inform that for pressure vessel code we follow standard with IS and EN code. Also we shall conduct all routine pressure test for enclosure as per IEC 62271-203 Kindly accept the same.	Common practice is bursting pressure test of welded aluminium enclosure 3 times the rated pressure and casted enclosure 5 times the rated pressure on each type of enclosure perform as a type test shall be discussed during DDE.



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86	GIS-TS	CL.No.3.4.3 Grounding / The grounding system shall be designed and provided as per IEEE-80-2000 and CIGRE-44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences.	We would like to inform that GIS OEM shall only provide the design detail for the GIS earthing and foundation. Earthing material supply required in between GIS and earth riser also of supply material supply required in between earhrise and main/aux earlthmat shall be under epc scope Kindly confirm the same.	As per bid requirement.
87	GIS-TS	CL.No.4.5.2 /Any device provided for voltage grading to damp oscillations or, to prevent re-strike prior to the complete interruption of the circuit or to limit over voltage on closing, shall have a life expectancy comparable of that of the breaker as a whole.	We would like to inform that for PIR is used to damped the oscillation and prevent the restrike However the used for PIR is above 400kV is applicable so for this project we have not envisage the PIR. Kindly accept the same.	May be accepted and finalized during DDE.
88	GIS-TS	CL.No.4.8 / Additional data to be furnished during detailed engineering : a) Drawing showing contacts in close, arc initiation, full arcing, arc extinction and open position. b) Data on capabilities of circuit breakers in terms of time and number of operations at duties ranging from 100 fault currents to load currents of the lowest possible value without requiring any maintenance or checks. c) Curves supported by test data indicating the opening time under close open operation with combined variation of trip coil voltage and hydraulic pressure.	We would like to inform that 1. for point a, c are OEM design confidential data and this is not related to project specific requirement. 2. for point b, the inspection of our breaker is contact in service shall be carried out after 2000 operating cycle and a after a cumulative interruption of 10 nos. at rated short circuit current. Kindly accept the same.	As per bid document
89	GIS-TS	CL.No.4.9.2 Routine test/ Routine Tests: Routine tests as per IEC: 62271-100 shall be performed on all circuit breakers. In addition to the mechanical and electrical tests specified by IEC, the following shall also be performed. i Speed curves for each breaker shall be obtained with the help of a suitable operation analyzer to determine the breaker contact movement during opening, closing, auto-reclosing and trip free operation under normal as well as limiting operating conditions (control voltage, pneumatic pressure etc.). The tests shall show the speed of contacts directly at various stages of operation, travel of contacts, opening time, closing time, shortest time between separation and meeting of contacts at break make operation etc. This test shall also be performed at site for which the necessary operation analyzer along with necessary transducers, cables, console etc. shall be provided. ii. Functional tests are to be carried out on circuit breaker along with Control Switching device (CSD). iii. DCRM (Dynamic Contact Resistance Measurement) to be carried out for all CBs during routine test.	We would like to inform that as GIS OEM we shall perform PD test and power frequency with stand test all other test shall be in epc scope of supply. Kindly accept the same.	All the test included in bid /relevant IEC shall be performed.



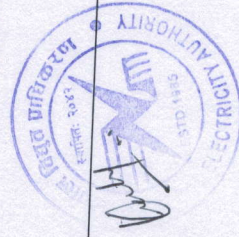
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90	GIS-TS	CL.No.9.2 Insulation coordination study/ Insulation co-ordination and selection of surge arrester: The contractor shall be fully responsible for complete insulation co-ordination of switchyard including GIS. Contractor shall carry out detailed studies and design calculations to evolve the required parameters locations, energy capability etc. of surge arresters such that adequate protective margin is available between peak impulse, surge and power frequency discharge voltages and BIL of the protected requirement. The locations of surge arresters shown in single line diagram is indicative only. If the contractor feels that at some more locations the surge arresters are required to be provided the same should also be deemed included in the offer.	We would like to inform that insulation coordination study not in GIS scope of supply. It is EPC scope of supply. Kindly accept the same.	As per bid document.
91	GIS-TS	CL.No.9.36 Grounding / The main grounding connection from the surge arrester to the earth shall be provided by the contractor. The size of the connecting conductor shall be such that all the energy is dissipated to the ground without getting overheated.	We would like to inform that We shall provide only earthing provision on L.A. However earthing material and earthing shall be in epc scope of supply, we shall only provide design detail of earthing. Kindly accept the same.	May be accepted and finalized during DDE.
92	GIS-TS	CL.No.13.1.8 Substation automation system/ LCC shall be suitable for remote operation from substation automation system (SAS). Each gas tight compartment shall be monitored individually per phase basis through SAS	We would like to inform that our GIS for 145kV is three phase encapsulated so per phase basis gas monitoring is not applicable. However each gas tight compartment is monitored by the GD and alarm signal are wired up to LCC for annunciator. SCADA and its integration and wiring shall be not in GIS scope of supply, It is epc scope of supply. Kindly accept the same.	As per bid document
93	GIS-TS	CL.No.13.2.3 LCC Protection / Each LCC panel should have its own separate AC supply source feed from the ACDB. The DC supply shall be from respective relay & protection panel power, control, interlocking, signaling. Each panel shall be provided with necessary arrangements for receiving, distributing and isolating of DC and AC supplies for various control, signaling, lighting and space heater circuits. The incoming and sub-circuits shall be separately provided with Fuses. All fuses shall be HRC cartridge type mounted on plug-in type fuse bases. The short time fuse rating of Fuses shall be not less than 9 KA. Fuse carrier base shall have imprints of the fuse 'rating' and 'voltage'.	We would like to inform that we shall provide the MCB for LCC protection. MCB is reusable and reliable than fuse. Kindly accept the same.	May be accepted and finalized during DDE.
94	GIS-TS	CL.No.13.2.11 emergency tripping system / Where key interlocking is employed tripping of the circuit breaker shall not occur if any attempt is made to remove the trapped key from the mechanism. Any local emergency-tripping device shall be kept separate and distinct from the key interlocking.	We would like to inform that we shall provide the interlocking mechanism for CB,DS,ES,HES. This equipment shall be operated by the LCC and by operating box located on GIS However we shall provide the emergency trip button on LCC any other device for interlocking not envisage. Kindly confirm the same.	As per bid document
95	GIS-TS	CL.No.15 EOT crane / ELECTRIC OVERHEAD CRANE : One EOT Crane each for GIS hall of suitable capacity shall be provided for erection & maintenance of largest GIS component/assembly. The crane shall consist of all special requirements for erection & maintenance of GIS equipment.	We would like to inform that EOT crane not in GIS scope of supply. It is EPC scope of supply. Kindly accept the same.	EoT crane including GIS is under scope of this bid/ bidding document.
96	GIS-TS	CL.No.16 Ventilation system for GIS hall / VENTILATION SYSTEM FOR GIS HALL Each GIS Hall shall have an independent ventilation system. Each Ventilation system shall consist of two 100% capacity systems, one operating and one stand-by.	We would like to inform that Ventilation system not in GIS scope of supply. It is EPC scope of supply. Kindly confirm the same.	As per bid requirement.



Chobhar Patan Chapagaun 132kV Underground Transmission Line Project
Design, Supply, Installation, Testing and Commissioning of New Patan 132/66/11kV GIS Substation (Package A1.2)
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S.N.	Volume/Section	Clause No. / Description	Bidder's Query	NEA Reply
97	GIS-TS	CL.No.17 Seismic design criteria/ SEISMIC DESIGN CRITERIA: The equipment shall be designed for operation in seismic zone for earthquake resistance. The seismic loads are due to the horizontal and vertical acceleration which may be assumed to act on concurrently. Seismic Qualification requirements shall be as per IEC 62271-207 for the design of equipment. The equipment along with its parts shall be strong enough and sufficiently well connected to resist total operating stresses resulting from the forces in normal operation, but in case of abnormal condition shall also resist with forces superimposed due to earthquakes. The copies of type test reports for similar rated equipment, if tested earlier, should be furnished. If the equipment has not been type tested earlier, Test Report/Analysis Report should be furnished.	We would like to inform that we shall provide the seismic analysis report Type test is not envisaged we can guarantee the seismic performance of our GIS by submitting seismic analysis report . Kindly confirm the same .	As per bid document.
98	GIS-TS	CL.No.18.7 / Details regarding the loosely distributed metallic particles within the GIS encapsulation and calculations of critical field strength for specific particles of defined mass and geometry. b) Study report of VFTO generated for GIS installation. c) The methodology and all the equipment for electrical partial discharge (PD) detection, including that mentioned in the specification elsewhere. d) The calculations and documents in support of the average intensity of electromagnetic field on the surface of the enclosure above during detailed engineering. e) The detailed criteria/ design regarding location of pressure relief devices/rupture diaphragms f) Calculations to show that there is no Ferro resonance due to capacitance of GIS for the voltage transformers g) Design calculation for simulated parameters for Seismic level as applicable h) Insulation Coordination studies including studies to recommend for additional surge arrester i) Calculation in support of touch & step voltages in all enclosures and earthing of complete GIS installation. J) Measures to mitigate transient enclosure voltage by high frequency currents. k) Calculation for providing bus duct supports.	We would like to inform that i) No loosely distributed metallic particles within the GIS encapsulation ii) VFTO studies are applicable only for 400kV GIS and above. iii) Methodology for PD detection is defined in Tech Spec as UHF technique & as per CIGRE 654, offered solution is same; hence no special documentation is envisaged. iv) Being continuous enclosure design, available bonding connections for GIB and earthing equipotential. Hence no electromagnetic field appears on enclosure surfaces and calculations are not envisaged. (details of earthing / bonding connections and continuous enclosure construction can be submitted during DDE). v) Each and every gas compartment is provided with pressure relief device / rupture diaphragm; same shown in layout. Hence no special design criterion is applicable to be submitted separately. vi) Insulation Coordination studies including studies to recommend for additional surge arrester vii) Study report of seismic analysis shall be submitted during detail engineering. viii) Insulation coordination is in EPC scope of supply any related information required for the same shall be submitted by GIS team. ix, x) Common supporting document of earthing philosophy shall be submitted during detail engineering. xi) GIS and GIB structure design is standardised by manufacturer after finalization of plinth height and GIS layout; hence no separate calculation is envisaged.	As per bid document and latest relevant revision of IEC.
99	GTR	ANNEXURE-1 point number 16 Auto reclosing / Single Phase auto reclosing and three phase auto reclosing	We would like to inform that our GIS module for 145 kV is there Phase encapsulated so single phase auto reclosing is not possible . Kindly accept the same .	May be accepted and finalized during DDE.



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S.N.	Volume/Section	Clause No. / Description	Bidder's Query	As per bid document	NEA Reply
100	GTR- chapter 2	CL.No.9 Type test report / The test reports submitted shall be of the tests conducted within last 10 (ten) years prior to the originally Scheduled date of bid opening. In case the test reports are of the test conducted earlier than 10 (ten) years prior to the originally Scheduled date of bid opening, the contractor shall repeat these test(s) at no extra cost to the purchaser. However, in case of instrument transformers, the following type tests should have been conducted within 5 (five) years prior to the originally Scheduled date of bid opening. i) Lightning Impulse Test ii) Switching Impulse Test iii) ~ Multiple Chopped Impulse Test (For CT) In case the test reports are of these tests (for instrument transformers) as mentioned above are conducted earlier than 5 (five) years prior to the originally Scheduled date of bid opening, the contractor shall repeat these test(s) at no extra cost to the purchaser.	We would like to inform that as per CEA guideline Type test validity should be up to 15 Year from the Type Test is conducted we follow CEA Guideline Kindly accept the same.	As per bid document	
101	GTR	CL.9.9 Routine test/ The Purchaser will have the right of having at his own expenses any other test(s) of reasonable nature carried out at Contractor's premises or at site or in any other place in addition of aforesaid type and routine tests, to satisfy that the material comply with the specification. The Purchaser reserves the right for getting any field tests not specified in respective chapters of the technical specification conducted on the completely assembled equipment at site. The testing equipments for these tests shall be provided by the Purchaser.	We would like to inform that we have performed the all Type test and routine test as per IEC standard. We shall provide the Type test report. However, we have not envisaged any other test other than IEC62271-203. Kindly accept the same.	As per bid document	
102	GTR	CL.No.10.2 HV test equipment / The available instrumentation and control equipment will be used during such tests and the Purchaser will calibrate, all such measuring equipment and devices as far as practicable. Any special equipment, tools and tackles required for the successful completion of the Commissioning Tests shall be provided by the Contractor, free of cost. The specific tests requirement on equipment have been brought out in the respective chapters of the technical specification. The Contractor shall be responsible for obtaining statutory clearances from the concerned authorities for commissioning the equipment and the switchyard. However, necessary fee shall be reimbursed on production of requisite documents.	We would like to inform that we shall provide the HV equipment for testing purpose in returnable basis, remaining all testing and commissioning will be in EPC scope. Kindly accept the same.	As per bid document	
103	GTR	CL.No 18.12 IP class / The enclosure of bay marshalling kiosk, junction box, terminal box shall conform to IP-55 as per IEC 60529/ Equivalent International Standard including application of 2.0 KV rms for 1 (one) minute, insulation resistance and functional test after IP-55 test	We would like to inform that for GIS we shall provide the IP class is IP44 for operating box and LCC this class is sufficient to protect dust, moisture, humidity in indoor GIS substation. Kindly accept the same.	As per bid document	
104	GTR	CL.No 20.13 / The Contractor shall furnish all wire, conduits and terminals for the necessary interphase electrical connections (where applicable) as well as between phases and common terminal boxes or control cabinets.	We would like to inform that we shall provide the wiring between the GIS to LCC. However, wiring is routing through the cable trenches the cable tray over the GIS shall be in scope of GIS OEM and all other arrangement shall be in EPC scope of supply. Kindly confirm the same. Kindly confirm the same.	As per bid document. Shall be finalized during DDE.	

