

Clarification-I

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udiupur 220kV Transmission Line and Associated Substations at Khudi & Manang				Bidder's Queries	NEA's Response
S.N.	Substation	Vol	Sec/Chap	Clause	
1	Manang	Vol-II	Drawing		Surge arrester for 72.5kV system Please note as indicated in SLD, 72.5kV surge arrester has indicated. However same is not mentioned in BPS. Please confirm us which shall be preferred.
2	Khudi	Vol-II	Drawing		Surge arrester for 72.5kV system Please note as indicated in SLD, 72.5kV surge arrester has indicated. However same is not mentioned in BPS. Please confirm us which shall be preferred.
3	Common	General	General	General	We understand that operation and maintenance of the substation is not in the bidders scope. Please confirm.
4	Common	General	General	General	Kindly confirm the availability & acquisition of the land for the proposed substations. Kindly provide the GPS co-ordinates of the proposed substation location
5	Common	General	General	General	Kindly provide the Soil Electrical Resistivity Parameters for both locations i.e., Manang & Khudi SS for Design of Earthing.
6	Common	General			Please specify the length or starting point of Approach Road to Manang & Khudi Substation.
7	Common	Vol-II			Bidding Documents have described the function of fault recording device but no involvement in BPS. Please specify.
8	Common	Vol-II			Please describe the current situation of communication equipment in Udiupur Substation as well as the current situation data and drawings of the relevant communication network.
9	Common	Vol-II			Please specify whether the expansion of communication equipment in Udiupur is under the present scope of work.
10	Common	Vol-II			Bidding Documents have proposed the reservation of power carrier communication interface but no involvement in BPS. Please specify whether such work is under the present scope.
11	Common	Vol-II			Horizontal peak acceleration value is 0.5g. This value is larger according to our experience. Please clarify it.
12	Common	Vol-II			Bidder proposes to design GIS building to be reinforced concrete structure other than steel structure. Please clarify it.
13	Common	General			Please provide the hydrological data, geological exploration data for our reference.
14	Common	General			Please specify the method of measurement of earthwork volume.
15	Common	General			Bidder can adjust the coordinates of lower locations according to the actual situation during the engineering design, subject to the Employer's approval. Please confirm it.
16	Common	General			Please specify the place where AACSR conductors are to be used.
17	Common	General			Bidder can propose the conductors with smaller sectional area.. Please confirm.
18	Common	General			Bidder proposes to adopt the standards other than Indian Standards for line structures, such as Chinese Standard, European Standard or American Standard. Please confirm it.
19	Common	General			Bidder proposes to design the towers according to the meteorological conditions and use conditions as well as the corresponding standards other than the given tower types in the Bidding Documents. Please confirm it.
20	Common	General			Please indicate the place where the multi-circuit towers are to be used and the accurate number of circuits of the towers.
21	Common	General			At present, the transportation condition of heavy equipment can not meet the requirements. It is proposed to consider the work of quantity for the reconstruction and expansion of the transportation road (mainly including bridges and roads).
22	Common	General			Can we adopt new technical proposal (Main wiring, general layout, equipment selection, etc)?

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S.N.	Substation	Vol	Sec/Chap	Clause			
23	Common	Vol II			Please kindly confirmed whether the specification of the materials for 220kV Lines (including grounding lines, iron towers, etc.) mentioned in the list of materials of the tender documents must be applicable or it can be alternative? Is it necessary to use the tower type of 220kV Lines specified in the tender documents? Can we use other types of tower? Please clarify it.		As per the provision of the Bid document.
24	Common	Vol II	Chap-20		As mentioned in the list of quotations, three-winding transformers are proposed, but the design drawings state that two-winding transformers should be adopted. Therefore, we would like to confirm that which kind of transformer should be used? Is it up to our decision?		No. All power transformers are autotransformers. So follow the bidding document.
25	Common	Vol-I	Sec-1	Cl-21.3	Bid security, all from a reputable source from an eligible country is acceptable.		Bidder's understanding is generally in order.
26	Common	Vol-I	Sec-3	Cl-2.5 A	Accordingly, we understand that Bank Guarantee towards Bid Security issued from reputable source (Not having branch in Nepal) is acceptable to NEA. Counter Guarantee from Branch of Bank in Nepal is not required. Please confirm. As per the referred clause, all the documents like type test reports, performance certificate, ISO certificate pertaining to vendor qualification need to be notarized for the submission of the same along with the bid. Since EPC bidders would propose multiple makes for various equipments and that too from different MNCs, it would be practically difficult to get notary for all these documents at the bidding stage. Also, the volume of documents will be huge. Hence, we request you to kindly accept the documents without notary at the bidding stage specifically for sub-vendor's credentials. We shall provide necessary Notarised documents, incase it is required by NEA during bid evaluation.		The bidder has to provide all notarized credentials and relevant documents related to bidder. However the document related to subvenders can be submitted if bidder happens to be lowest bidder. Please also refer Amendment I.
27	Common	Vol-I	Sec-3	Cl-2.5 A	As per the referred clause, ISO 9001 quality certificate (including registration of design scope) is mandatory for all the major Equipment manufacturers. From our past experiences, We would like to highlight that no structure manufacturers is having this design registration certificate. Hence we request you to waive off this requirement of design registration only for structure. Please confirm.		As per the provision of the Bid Documents.
28	Common	Vol-I	Sec-3	Cl-2.5 A	As per the qualification requirement of GIS manufacturer, it is given that the GIS manufacturer should have 5 years manufacturing experience and they should have supplied atleast twice the bid quantity as a main supplier over last five years and the same shall be in satisfactory operation for 1 year. With regard to the above, we would like to inform that major GIS manufacturers like ABB, GE, Siemens etc have established GIS factories in India and have adequate performance experience as mentioned above from their Indian factory, but using their parent companies type test certificates, since design being the same. Hence, we request NEA to accept the type test of parent company, if the GIS manufacturers having stipulated performance and meeting criteria (i) and (ii) as given below (i) Must have manufacturing experience of at least 5 (five) years. (ii) Must have designed, manufactured and supplied GIS Switchgears 220 kV or higher voltage class / 132kV or higher voltage / 33kV (as applicable clause) at least twice the bid quantity as a main supplier over last five (5) years period ending on the last date of bid submission. Out of supplied quantity, a minimum of half the bid quantity shall have been in operation satisfactorily to the end users for at least One (1) year. Kindly confirm		As per the provision of the Bid Documents.
29	Common	Vol-I	Sec-3	Cl-2.5 A	As per clause 2.5-A, Sl. no. 2-(d), it is mentioned as "Manufacturer/Bidder must have successfully carried out the complete type test including Dynamic Short Circuit (DSC) test as per IEC over last 7 years period as on the originally scheduled date of bid opening in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on : - 220 kV voltage class, three phase 160 MVA (or single phase 3 X 53.33 MVA) - 132 kV voltage class, three phase 50 MVA We interpret that, for 220kV Voltage class, either three phase 160MVA Transformer must have been SC tested (or) Single phase 53.33MVA Transformer must have been SC tested. Kindly confirm whether Bidder's interpretation is in order		Bidder's understanding is generally in order.

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S.N.	Substation	Vol	Sec/Chap	Clause				
30	Common	Vol-I	Sec-3	Cl-2.5 A	1. We understand that, there is no requirement for Dynamic short circuit test for 220/132/33kV, Single phase 33.33MVA Transformer and the same can be validated using calculations in line with relevant IEC/Cigre standards 2. We understand that, there is no requirement for Dynamic short circuit test for 132/33kV, Three phase 30MVA Transformer and the same can be validated using calculations in line with relevant IEC/Cigre standards			As per the provision of the Bid Documents.
31	Common	Vol-I	Sec-3	Cl-2.5 A	Kindly accept our request.			As per the provision of the Bid Documents.
32	Common	Vol-I	Sec-3	Cl-2.5 A	We understand that the validity for all the type test reports shall be 10 years as on the scheduled date of technical bid opening. Please confirm. As per the referred clause it is mentioned that the subcontractor must have valid type test certificates for all equipments. Kindly confirm that the type test reports shall be submitted only by the successful bidder after award of the contract and the reports are not required to be submitted during bidding stage. In this regard, the bidder shall submit an undertaking during bidding stage to submit the report incase of award of contract. Kindly accept our proposal.			As per the provision of the Bid Documents.
33	Common	Vol-I	Sec-3	Cl-2.5 A	As per the referred clause experience certificates for RIP bushings are asked separately. Since RIP bushings are part of transformer giving documents separately for RIP bushings will be difficult. Hence we understand that documents given for transformer will be sufficient for RIP bushings also. Please confirm.			Manufacturer of the RIP Bushing has to be mentioned in TDS with required credentials as per the provision of bidding document.
34	Manang & Khudi	Vol-I	Sec-3	Cl-2.5B	Bidder(s) must submit notarized copy of all the necessary documents required to prove the above specified legal status, Valid ISO Certificate, experience eligibility requirements (substantiated by end users certificate) and type test report. Since this tender is combines transmission line & substation, so size of bid is going to be tremendous & will involve thousands of pages, and to get same notarised is going to be very much impractical, we request employer to relax this requirement. We understand, if this requirement is not relaxed & bidder submits bid without notarization same shall be rejected. Please confirm This guarantee will expire (ii) 28 days after the expiration of the Bidder's bid.			The bidder has to provide all notarized credentials and relevant documents related to bidder. However the document related to subvendors can be submitted if bidder happens to be lowest bidder. Please also refer Amendment I.
35	Common	Vol-I	Sec-4		We request you to permit the Issuing Bank may explicitly mention the date in closed bracket after "....expiration of the Bidder's bid."			Yes the mentioning of date shall be permitted.
36	Common	Vol-I	Sec-6		We confirm to provide the curriculum vitae the substation and transmission line staff(as per specified clause) during bidding stage. We request that CV of common staff shall be produced during contract negotiation. Kindly confirm our request			As per the provision of the Bid Documents.
37	Manang & Khudi	Vol-I	Sec-7		The commitment letters from transmission line and substation staff shall be required. The commitment letter of common staff shall be submitted during time of Contract negotiation. The personnel for Transmission line and Substation staff cannot be changed without written permission from the Employer if bidder happens to be successful bidder. We understand commitment letter for deploying no. of personnel with required qualification is to be submitted along with the bid. Also individual qualified personnel's proposed at bidding stage can be changed after award of contract provided these personnel's meets all qualification criteria as required in specification. Please confirm our understanding is correct.			As per the provision of the Bid Documents.



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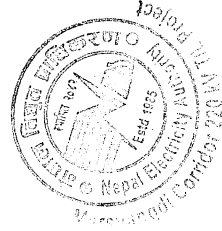
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S.N.	Substation	Vol	Sec/Chap	Clause
Bidder's Queries				
				The Contract Price shall remain FIRM and shall not be subject to any escalation/ Price Adjustment during the currency of the Contract.
38	Common	Vol-I	Sec-8	Cl-11
				Since the supplies will be after a year and the prices are fluctuating , We request you to allow Price adjustment for below equipments/ Materials of Supply:
				1. Tower materials including Bolts & Nuts. 2. ACCC - HTLS Conductor. 3. ACSR Conductor. 4. Power/ Auto Transformers 5. Substation Tower & Equipment structures 6. Pre Engineered Building 7. Power & Control cables 8. Reinforcement steel & Cement
39	Manang & Khudi	Vol-I	Sec-8	Cl-13.1 i) & ii)
				(i) Performance Security in the amount equivalent to ten percent (10%) of the Supply Cost (CIP or EXW, as applicable) of all ratings of Gas Insulated Switchgears including isolators and breakers, 220/132/33 KV Power Transformer, 132/33 KV Power Transformer, SAS communication equipment, CNR Panels with relays, meters and metering equipment, pre-engineered buildings with a validity up to one (01) Month beyond the extended Defect Liability Period for said equipment [refer GCC Sub-clause 27.10]. (ii) Performance Security in the amount equivalent to ten percent (10%) of the Contract Price for all equipment/materials/ services other than those specified in (i) above, with a validity up to one (01) Month beyond We understand that, Clause 13.1 i) & 13.1 ii) intend to say that contractor need to submit performance security of 10% of contract price with a validity upto 01 month beyond the extended defect liability. Please confirm if our understanding is correct.
40	Common	Vol-I	Sec-8	Cl-14
				As per the referred clause we understand that for the imported items customs duty shall be reimbursable at a special rate of 1% of CIP or customs entry point value. And VAT for the imported materials shall be exempted and for the materials supplied directly from manufacturing plant in the employers country shall be reimbursed. We understand that the taxes and duties will not be taken for evaluation. Please confirm.
41	Common	Vol-I	Sec-9	AP-1
				As per the referred Appendix, 10% of the equipment cost will be paid after Completion certificate only, within 45 days after the receipt of invoice. We request you to release this 10% of the equipment cost after erection of the equipments at site. Kindly confirm.
42	Common	Vol-I	Sec-3	Cl-2.5
				Kindly confirm, if there is no change in the design of Equipment (132kV GIS) , whether type test report with validity more than 7 years is acceptable (As this is acceptable as per IEC)
NEA's Response				
				As per the provision of the Bid Documents.
				Bidders' understanding is generally in order
				Please follow the Clause-14 of SCC. Information on tax obligation in Nepal can be found at the website of Inland Revenue Department of Nepal Government http://www.ird.gov.np Applicable rate a) TDS 1.5 % b) Custom Tax 1 % c) VAT 13 % Custom duty and VAT are reimbursable
				As per the provision of the Bid Documents.
				As per the provision of the Bid Documents.



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S.N.	Substation	Vol	Sec/Chap	Clause	Bidder's Queries
43	Common	Vol-I	Sec-3	Cl-2.5(2)	As per referred clause it is mentioned that " Must have successfully carried out the complete type test including Dynamic Short Circuit (DSC) test as per IEC over last 7 years period as on the originally scheduled date of bid opening in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on : - 220 kV voltage class, three phase 160 MVA (or single phase 3 X 53.33 MVA) - 132 kV voltage class, three phase 50 MVA. However, if the Bidder/Manufacturer has not conducted the complete type tests including DSC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory then the bidder has to submit undertaking letter along with 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 without any extra cost to the employer. ". Please confirm whether Dynamic Short circuit test conducted on higher rating (Voltage class as well as Capacity) of transformer is acceptable.
44	Common	Vol-I	Sec-3	Cl-2.5(2)	Kindly confirm, if there is no change in the design of Equipment (Transformer), whether type test report with validity more than 7 years is acceptable (As this is acceptable as per IEC)
45	Common	Vol-I	Sec-3	Cl-2.5(3)	As per referred clause of GIS, it is mentioned that "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, Disconnecter, 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 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." We request you to include/accept STL Lab - witnessed type test reports also.
46	Common	Vol-I	Sec-3	Cl-2.5(3)	Kindly confirm, if there is no change in the design of Equipment (220kV GIS) , whether type test report with validity more than 7 years is acceptable (As this is acceptable as per IEC)
47	Common	Vol-I	Sec-3	Cl-2.5(4)	As per referred clause of GIS, it is mentioned that " 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, Disconnecter, 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 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". We request you to include/accept STL Lab-witnessed type test reports also.
48	Manang	Vol-II	ANNEXUR E- IX		Technical parameter for 72.5 kV Equipment's & 33 kV NCT Please note that as per PSR, all the 72.5kV equipment rated short time current shall be 25KA for 3 sec. However as per BPS, 72.5kV equipment data is mentioned at 31.5KA. Please confirm the short circuit level of 72.5kV equipment
49	Khudi	Vol-II	ANNEXUR E- IX		Technical parameter for 72.5 kV Equipment's & 33 kV NCT Please note that as per PSR, all the 72.5kV equipment rated short time current shall be 25KA for 3 sec. However as per BPS, 72.5kV equipment data is mentioned at 31.5KA. Please confirm the short circuit level of 72.5kV equipment



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S.N.	Substation	Vol	Sec/Chap	Clause	Bidder's Queries	
50	Manang & Khudi	Vol-II	Sec-4	CI-1.1.2.1	Employer shall provide structural drawings, shop drawings & Bill of Materials of DB, DC and DD type of standard transmission line towers and their extensions, river crossing towers/ special towers as required to the Contractor after placement of award, in sequence, suiting the project requirement. The drawings for all type of foundations for the towers shall also be provided by Employer to the Contractor. We understand that Tower and Foundation design of DB, DC & DD is scope of NEA for both lines i.e. with ACSR moose conductor & HTLS conductor. However Special Tower & multicircuit towers & foundation design is in scope of bidder. Please confirm if our understanding is correct. In addition to this tower type DB, DC & DD with +18/+25/+30 M is in scope of bidder. Please Confirm. Also please provide Weights & volumes for tower type DB, DC and DD for both lines.	Bidders understanding is generally in order. Weight & volume of towers shall be provided during detail engineering.
51	Manang & Khudi	Vol-II	Sec-4	CI-1.7.3	For counterpoise type earthing, the earthing will vary depending on soil resistivity. For soil resistivity less than 1500 ohms-meter, earthing shall be established by providing 4 lengths of 30m counterpoise wire. Otherwise, for soil resistivity greater than 1500 ohms meter earthing shall be established by providing 4 length of 70m counterpoise wire. From this clause, we understand that only counter poise earthing will be installed in both lines, please confirm if our understanding is correct.	As per the provision of the Bid document.
52	Manang	Vol-II	Chap-1	CI-12.15	The Contractor shall provide AC/DC feeders for complete future bays also as per single line diagram in addition to bays under present scope Number of outgoing feeder for LT Switch gear (MSB, ACDB, DCDB , MLDB and ELDB) shall be considered for complete 220/132/33kV Substation including future bays as mention in SLD .	As per the provision of the Bid document.
53	Manang	Vol-II	Chap-1	CI-12.16	One number each Energy meter for the record and revenue purpose is to be provided for each 220/132/33kV bays (Bus coupler bays / Bus Sectionalizer bay to beexcluded) at Manang and Khudi substations under present scope of contract, meetingthe requirement as specified at Annexure – VI. Energy meter quantity is not mentioned in price schedule. Kindly confirm the consideration of energy meter.	Quote as per the PSR.
54	Khudi	Vol-II	Chap-1	CI-12.16 (PDF Page no.14)	One number each Energy meter for the record and revenue purpose is to be providedfor each 220/132/33kV bays (Bus coupler bays / Bus Sectionalizer bay to beexcluded) at Manang and Khudi substations under present scope of contract, meetingthe requirement as specified at Annexure – VI. Energy meter quantity is not mentioned in price schedule. Kindly confirm the consideration of energy meter.	Quote as per the PSR.
55	Manang	Vol-II	Chap-1	CI-12.4 (PDF Page no.38)	Augmentation and integration work related to SCADA System Please provide the detailed existing system data for Master Station i.e. Nepal Electricity Authority Load Dispatch Centre (located in Siuchatar,Kathmandu) for integration with Manang	Same shall be provided during Detail Engineering.
56	Khudi	Vol-II	Chap-1	CI-12.4 (PDF Page no.38)	Augmentation and integration work related to SCADA System Please provide the detailed existing system data for Master Station i.e. Nepal Electricity Authority Load Dispatch Centre (located in Siuchatar,Kathmandu) for integration with Manangsubstation & Khudi Substation	Same shall be provided during Detail Engineering.
57	Manang	Vol-II	Chap-1	CI-12.5 (PDF Page no.38)	The scope of work for supply, installation of Optical Line Termination Equipment,Digital Multiplexer, hardware accessories etc. at substations (i.e. Manang substation& Khudi Substation), LDC Kathmandu and its integration work (at LDC Kathmandu)for onward transmission of Data and Voice communication up to LDC Kathmandu is included in the contract. We understand that bidder scope is supply, installation of Optical Line Termination Equipment,Digital Multiplexer, hardware accessories etc. at substations (i.e. Manang substation& Khudi Substation) only. Please confirm our understanding.	Bidders' understanding is generally order.
58	Manang	Vol-II	Chap-1	CI-3.1.1.1.4(i) (PDF Page no.17)	LT Transformers and associated equipment-630 kVA, 33/0.400kV, LT Transformer with associated 36kV HG fuse, Isolators,Bus Post Insulators, conductor, clamps, connectors etc. complete in all respect for LT transfer bay (one LT transformer is to be fed from 33 kV GIS LT transformer bay and one LT transformer is to be fed from 33 kV external supply). Please clarify the requirement of 36kV HG fuse as LT Transformer is directly associated with their 33kV GIS breaker and respective isolator. if required, then where shall be located.	Bidder is to quote as per BPS.



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S.N.	Substation	Vol	Sec/Chap	Clause			
59	Khudi	Vol-II	Chap-1	CI-3.1.1.1.4(i) (PDF Page no.17)	LT Transformers and associated equipment:-630 kVA, 33/0.400KV, LT Transformer with associated 36kV HG fuse, isolators, Bus Post Insulators, conductor, clamps, connectors etc. complete in all respect for LT transfer bay (one LT transformer is to be fed from 33 kV GIS LT transformer bay and one LT transformer is to be fed from 33 kV external supply. Please clarify the requirement of 36kV HG fuse as LT Transformer is directly associated with their 33kV GIS breaker and respective isolator. If required then where shall be located.		Bidder is to quote as per BPS.
60	Manang	Vol-II	Chap-1	CI-3.1.1.4(d) (PDF Page no.16)	BCU FOR 245KV- 9 NUMBER BAYS, 132KV- 10 NUMBER BAYS, 36 KV- 10 BAYS & 1 SET FOR 220/132/33KV SUBSTATION AUXILIARY SYSTEM Please note that as per SLD, we understand that total nos. of 33kV bay is 9 nos. Hence 9 nos. of BCU should be considered for 36kV system. Please confirm our understanding.		As per the provision of the Bid document.
61	Manang	Vol-II	Chap-1	CI-3.1.1.4(i) (PDF Page no.17)	LT Transformers and associated equipment:- 630 kVA, 33/0.400KV, LT Transformer with associated 36kV HG fuse, isolators, Bus Post Insulators, conductor, clamps, connectors etc. complete in all respect for LT transfer bay (one LT transformer is to be fed from 33 kV GIS LT transformer bay and one LT transformer is to be fed from 33 kV external supply). Please specify the Contractor scope of work		External source can be tertiary of the 220/132/33 kV Transformer.
62	Manang	Vol-II	Chap-1	CI-3.1.2 (PDF Page no.7)	220KV Transformer bay: 2 (Two) number bays for Two banks of 220/132/33 kV 1-phase, 7 nos. of 33.33 MVA Auto-Transformers (supply of 4 x 33.33 MVA under present scope and 3 x 33.33 MVA shall be connected in future We understand that supply of 4 x 33.33 MVA is under bidder scope only.		Bidders' understanding is generally order.
63	Khudi	Vol-II	Chap-1	CI-3.1.3(A) (PDF Page no.8)	220 kV Transformer bay: 2 (Two) number bays for Two banks of 220/132/33kV 1-phase, 7 nos. of 53.33 MVA Auto-Transformers (supply of 4 x 53.33MVA under present scope and 3 x 53.33 MVA shall be connected in future) We understand that supply of 4 x 53.33 MVA transformer is under bidder scope.		Bidders' understanding is generally order.
64	Manang	Vol-II	Chap-1	CI-3.2.1.1.4 (PDF Page no.16)	For 220/132/33kV GIS, Sub-station automation system including hardware and software for local as well as remote control station along with associated equipments for following bays (bay as defined in Technical Specification, Section - Substation Automation) BCU FOR 245KV- 9 NUMBER BAYS, 132KV- 10 NUMBERBAYS, 36 KV- 10 BAYS & 1 SET FOR 220/132/33KV SUBSTATION AUXILIARY SYSTEM Remote substation shall be identified during detailed engineering stage Our scope is limited to our Sub-station end only (MANANGI). Bidder need not to considered any software & hardware etc. at remote end. Please confirm.		Bidder is to quote as per BPS.
65	Khudi	Vol-II	Chap-1	CI-3.2.2.2(d) (PDF Page no.29)	BCU FOR 245KV- 11 NUMBER BAYS, 132KV- 10 NUMBER BAYS, 36 KV- 12 BAYS & 1 SET FOR 220/132/33KV SUBSTATION AUXILIARY SYSTEM Please note that as per SLD, we understand that total nos. of 33kV bay is 11 nos. Hence 11 nos. of BCU should be considered for 36kV system. Please confirm our understanding.		Bidder is to quote as per BPS.
66	Khudi	Vol-II	Chap-1	CI-3.2.2.2(q) (PDF Page no.30)	Earth Mat Designing. Kindly provide soil resistivity.		Soil resistivity measurement is in the scope of the Contractor.
67	Manang	Vol-II	Chap-1	CI-3.5 (PDF Page no.18)	Earth Mat Designing. Kindly provide soil resistivity.		Soil resistivity measurement is in the scope of the Contractor.
68	Manang	Vol-II	Chap-1	CI-3.5 (PDF Page no.18)	Earth Mat Designing. Please note that we understand earth mat design is for present scope only excluding future scope.		As per the provision of the Bid document.
69	Manang	Vol-II	Chap-1	CI-9 (PDF Page no.37)	Mandatory Spares Mandatory spare shall be considered as per BPS or not. Please confirm.		Bidders is to quote as per BPS.
70	Manang	Vol-II	Chap-12		The outdoor equipment of the substation and the substation building shall be protected against lightning We assume that 400KV GIS, 132KV GIS, 33KV GIS and control building along with the outdoor equipments shall be protected against lightning. Please confirm.		Yes, Bidder's understanding is generally in order.

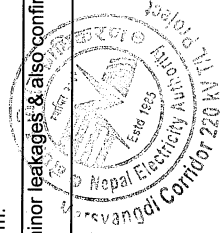
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Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udipur 220kV Transmission Line and Associated Substations at Khudi & Manang					Bidder's Queries		NEA's Response
S.N.	Substation	Vol	Sec/Chap	Clause			
71	Manang	Vol-II	Chap-19	Cl-6.1.1	The criteria for Transformer losses shall be "Copper Loss (Load Loss) > Iron Loss(No Load Loss) > Cooler Loss (Auxiliary Loss)". Chapter 19, Chapter 19, Transformer and Reactor, Cl no. 6.1.1 Please furnish the power transformer losses (copper, iron and auxiliary) for 220/132kV transformer, 132/33kV transformer and aux transformer		Bidder has to declare all types of losses of transformers for each type as per bid document.
72	Common	Vol-II Part A	Chap-13		"Survey Report" in Section XIII, Volume II makes the suggestions about relocation of 33kV structures, relocation of APs, undergrounding of the lines, etc. Bidder wants to know who will be responsible for such relocations and undergrounding if required during the contract execution.		Same shall be finalized during Check survey.
73	Common	Vol-II Part A	Chap-4	Cl-6.1.1	It is mentioned that the employer will provide the loadings. We request you to please provide the loading calculations/loading tree and design parameters for DDS and MD type tower.		Same shall be provided during detail engineering.
74	Common	Vol-II Part B	Chap-1	Cl-12.16	As per referred clause, it is mentioned that, one no. of energy meter for Record & Revenue purpose shall be provided for each 220/132/33kV bays. Please clarify whether the energy meter shall be mounted in the respective control & relay panel. We presume that no separate metering panels are required.		Bidders understanding is generally in order.
75	Common	Vol-II Part B	Chap-1	Cl-12.19	As per referred clause & SLD (Drg. No. C/JENG/NEPAL/KHUDI GIS/SLD/01 Rev. 0 & C/JENG/NEPAL/MANANG GIS/SLD/01 Rev. 0) we understand that, Isolators are not required for Switching Delta & Neutral connections while connecting spare Transformer and can be done through Manual jumpering. Kindly confirm.		Bidders understanding is generally in order.
76	Common	Vol-II Part B	Chap-1	Cl-12.6	As per referred clause, 250A receptacle near transformer area shall be provided for Manang & Khudi substation. However, there is no separate line item for 250A oil filtration receptacle in the BPS. Kindly include & revise the schedule accordingly.		250A receptacle is part of switchyard lighting. Bidder is to quote as per provision of bidding documents.
77	Common	Vol-II Part B	Chap-1	Cl-3.2.1.1.3	As per referred item, the scope of work of 33kV shall consists of 6 Nos. of 33kV Outgoing line bays, 1No. of 132/33kV transformer bays, 1 No. of LT Transformer feeder bay & 1No of Bus- sectionaliser bay. However, in Bid price schedule, S.No.J.1, iii, SAS shall be provided for 10 Nos. of 33kV Bays. Please confirm the requirement.		Bidder is to quote as per the provision of bid document.
78	Common	Vol-II Part B	Chap-1	Cl-3.2.1.1.4 & 3.2.2.1.3	As per referred item, one LT transformer is to be fed from 33kV GIS LT transformer bay & other LT transformer is to be fed from 33kV external supply. However, as layout of 220/132/33kV Khudi GIS SS, Drg. no. C/JENG-SS/NEA/KHUDI GIS/ GA/01 & Layout of 220/132/33kV Manang GIS SS, Drg. no. C/JENG-SS/NEA/Manang GIS/GA/0, one supply is taken from tertiary of 220/132kV transformer bay. Kindly confirm the requirement.		One LT Transformer is to be fed from GIS LT Transformer bay
79	Manang & Khudi	Vol-II Part B	Chap-1	Cl-3.2.1.1.5 & 3.2.2.3	We trust that, strengthening of existing road or bridge is not in bidder scope. Please confirm.		As per the provision of bidding document.
80	Manang & Khudi	Vol-II Part B	Chap-1	Cl-3.2.1.1.5 & 3.2.2.3	If in bidder scope. Please include the item for the same in price schedule. We trust that Rain water harvesting is not in bidder's scope. Please confirm.		As per the provision of bidding document.
81	Common	Vol-II Part B	Chap-1	Cl-3.2.2.1.3	If in bidder scope, please add the item in price schedule. As per referred item, the scope of work of 33kV shall consists of 8 Nos. of 33kV Outgoing line bays, 1No. of 132/33kV transformer bays, 1 No. of LT Transformer feeder bay & 1No of Bus- sectionaliser bay. However, in Bid price schedule, S.No.J.1, iii, SAS shall be provided for 12 Nos. of 33kV Bays. Please confirm the requirement.		Bidder is to quote as per the provision of bid document.
82	Common	Vol-II Part B	Chap-1	Cl-3.2.2.2	As per referred clause, Main-I shall be distance protection & Main-II shall be Line differential protection for both Local & remote ends. In this regard, we are not envisaging the following in our scope of work: 1. Panel for mounting the relays 2. Busbar integration 3. SAS integration 4. retrofitting works If SAS & Busbar integration is in our scope of work, kindly provide the existing make & model/Scheme, single or duplicated system of Bus bar & SAS. Please confirm.		Bidder is to quote as per provision of bidding documents.
83	Khudi	Vol-II Part B	Chap-1	Cl-3.2.2.2(i)	Kindly clarify the requirement of jockey pump to arrest the minor leakages & also confirm the requirement of standby pump (if required)		As per the provision of bidding document.



Project Manager



Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udipur 220kV Transmission Line and Associated Substations at Khudi & Manang					Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause				
84	Common	Vol-II Part B	Chap-1	CI-3.2.2.3.a & 3.2.1.1.5.a	As per referred clause, the size of 220kV, 132kV & 33kV GIS building shall be quoted as per BPS. However, in case of increase or decrease of building size during detailed engineering, we understand that the same shall be paid on unit rate basis. Please confirm.			Bidders understanding is generally in order. Bidder is to quote as per provision of bidding documents.
85	Common	Vol-II Part B	Chap-1	CI-5.2	As per referred clause, Ambient air temperature for Manang & Khudi substation shall be 45° C. However, in the same clause, for design purpose, maximum average ambient temperature should be considered as 50° C. However, in Chapter-22, 33 kV & 11 kV Indoor GIS, cl.no. 9.00, it is mentioned as Maximum ambient air temperature shall be 40° C. As the above mentioned clauses are contradicting each other, kindly confirm the actual requirement.			Inside room temperature for indoor switchgear purpose is max 40 degree C. For other designs, max temperature is to be considered as 50 degree C
86	Common	Vol-II Part A	Chap-1	CI-1.3	As per Clause 1.3 of Section-1, Right of way and way leave clearance shall be arranged by the Owner in accordance with work schedules. Owner will secure way leave and Right of way in the Forest area. From the above we understand that the compensation for arranging Right of way, damages during construction work in Right of way and access road, Tree felling & Compensation in Forest & Non Forest area shall be arranged by the Owner. Please Confirm.			Necessary Right of Way shall be arranged by the Project. However, the Contractor shall secure the necessary way leave/ access road. Further, Tree felling & Compensation in Forest & Non Forest area shall be arranged by the Project.
87	Common	Vol-II Part B	Chap-1	CI-3.2.1.1.5.(i) & 3.2.2.3.(u)	As per referred clause, approach road is in bidder's scope. We trust that, ROW required for making the approach road from nearest main road to substation site will be arranged by NEA, Please confirm.			Bidders' understanding is generally in order.
88	Common	Vol-II Part B	Chap-17	CI- 28.5 & 28.11	As per referred clause it is mentioned that "In case of extension of existing substation(s) which are without substation automation system, one set of Evaluation unit shall be supplied for each substation wherever disturbance recorders are required (as per Chapter-PSR) to be supplied along with necessary evaluation software as specified above. The Evaluation unit shall consist of a desktop personal computer (including at least 17" TFT colour monitor, mouse and keyboard) and A4 size colour printer. The desktop PC shall have i5 processor or better and having a clock speed 2.0 GHz or better. The hard disk capacity of PC shall not be less than 1000 GB and RAM capacity shall not be less than 4 GB." However we are not envisage the same as there is no specific requirement mentioend in Chapter-PSR/ BPS. Please confirm.			Bidder is to quote as per provision of bidding documents.
89	Common	Vol-II Part B	Chap-17	CI- 7, 11, 12 & 16	Since conventional control provision is not envisaged, Indicating Meters, Annunciators, Mimic Diagram & local synchronisation trolley may not be required. Hence the same are not considered. Please confirm.			Bidder is to quote as per provision of bidding documents.
90	Common	Vol-II Part B	Chap-17	CI-21	Kindly confirm whether inbuilt Over Fluxing Protection & Restricted Earth Fault Protection for Transformer differential protection is acceptable.			Bidder is to quote as per provision of bidding documents.
91	Common	Vol-II Part B	Chap-17	CI-26	We presume centralized busbar protection is required for the project as the control & relay panels are located in the control room building. Please confirm whether Bidder's understanding is correct.			Bidder is to quote as per provision of bidding documents.
92	Common	Vol-II Part B	Chap-18	CI-5.1.2.3	As per the referred clause, NMS shall be in our scope of work. However, there is no specific requirement of NMS in Chapter-1 Project specific requirement, we are not envisaging any supply/integration for the same in our scope of work. Please confirm.			Bidder is to quote as per provision of bidding documents.
93	Common	Vol-II Part B	Chap-2	CI-23.0	The offered Circuit Breakers & Isolators shall be equipped with universal motor instead of Squirrel cage motors. Please accept the same.			Bidder is to quote as per provision of bidding documents.
94	Common	Vol-II Part B	Chap-1 & 14		It is described that "Supply of support structure for 36kV circuit breaker is under scope of CB manufacturer as per their design" in Chapter 1 PSR and support of support structure for circuit breaker is under scope of Contractor in Chapter 14 Civil Works. Bidder understands that supply of support structure for 36kV circuit breaker is under scope of CB manufacturer but supply of support structure for circuit breaker of other voltage levels is under scope of Contractor. Please confirm our understanding.			As per the provision of the Bid document.
95	Common	Vol-II Part B	Chap-10		Kindly specify the type of light fitting for GIS Building, Residential colony & Transit camp (whether LED or Fluorescent type) for Manang & Khudi substation.			Bidder is to quote as per provision of bidding documents.



Project Manager

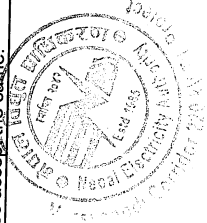


Clarification-1

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udupur 220kV Transmission Line and Associated Substations at Khudi & Manang				Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause			
96	Common	Vol-II Part B	Chap-1	CI-3.2.1.1.4.g	As per referred clause, it is mentioned that for Digital protection coupler for both ends of 220kV & 132kV Lines shall be provided. In this regard, we presume that supply of LT Power cable for DPC at remote end is not in scope of work. Please confirm.	LT Power cable for DPC is under present scope for both end.	
97	Common	Vol-II Part B	Chap-1	CI-3.2.1.1.4.i	As per referred clause, it is mentioned that for 220/132kV & 132/33kV Auto transformer, HVWS system is not envisaged. However, in the same clause, it is mentioned that Hydrant system shall be provided for all buildings, Store yard & each power transformer & LT transformer". Kindly confirm the actual requirement.	Bidder is to quote as per provision of bidding documents.	
98	Common	Vol-II Part B	Chap-20	CI-3.6.2.7	As per the referred clause, Online Gases and moisture monitoring system, Online drying system and Fibre optic sensor Box etc. shall be provided. However, there is no separate line item for On Line Dissolved Hydrogen and Moisture Measuring Equipment, Online drying system, Oil Sampling Bottle, Oil Syringe, Hand Tools, BDV Kit, Portable DGA. Hence we are not envisaging the same. Please confirm.	Online gas monitoring system & Online drying system is not envisaged in Technical specification. Only provision shall be provided so that in future, if required, it can be installed. Bidder is to quote as per provision of bidding documents.	
99	Common	Vol-II Part B	Chap-21	CI-11.1	As per referred clause it is mentioned that, "The creepage distance over the external surface of outdoor bushings shall not be less than 25 mm/kV and in highly polluted area it shall not be less than 31mm/kV (as per section- Project). However, in GIS specification, Annexure-6, it is mentioned that creepage distance shall be 25mm/kV. Please confirm the actual requirement.	Bidder is to quote as per provision of bidding documents.	
100	Common	Vol-II Part B	Chap-1	CI-3.2.1.1.5.(q) & 3.2.2.3.(p) and CI-3.2.1.1.5.(i) & 3.2.2.3.(u)	We trust that, land acquisition for proposed substation (including approach road) is not in bidder scope. Please confirm.	Bidders' understanding is generally in order.	
101	Common	Vol-II Part B	Chap-21	CI-13.1.1	As per referred clause, it is mentioned that, "The transformer / Reactor termination module enables a direct transition from the SF6 gas insulation to the bushing of an oil-insulated transformer / reactor. For this purpose, the transformer/reactor bushing must be oil-tight, gas-tight and pressure resistant. Any temperature related movement and irregular setting of the switchgear's or transformer's/reactor's foundations are absorbed by the expansion fitting."	Transformers connection is through AIS.	
102	Common	Vol-II Part B	Chap-21	CI-14.2.1	However as per 220/132kV GIS Substation SLD it is shown that SF6-Air Bushing. Please check and confirm the actual requirement. As per referred clause it is mentioned that " Local Control cubicle shall be either mounted on the GIS with front access or free standing, floor mounting type." However as per CI-14.2.6 Local control cubicles shall be provided to be free standing and shall be equipped with anti-condensation heaters. As both the clauses are contradicting each other, please confirm the actual requirement.	Please refer Chapter -PSR module descriptions.	
103	Common	Vol-II Part B	Chap-21	CI-15, 16 & 17	As per referred clause it is mentioned that as follows: i) High current short duration test value (4/10 micro second wave) 100 kAP 132KV 100 kAP ii) Current for pressure relief test 50kA/50kA 31.5kA iii) Prospective symmetrical fault current (rms for 0.2 Sec) 40kA for 2 Sec As per IEC. As the above values in i, ii & iii are contradicting each other request you to check and confirm the exact requirement.	Bidder is to quote as per provision of bidding documents.	
104	Common	Vol-II Part B	Chap-21	CI-22	As per referred clause, it is mentioned that " 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." However Shock indicators shall be provided only for VTs being a sensitive equipments. No electronic impact recorders are necessary for Circuit Breaker. Please accept the same.	Bidder is to quote as per provision of bidding documents.	



Project Manager

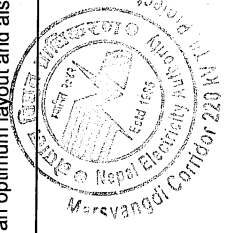


Clarification-I

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udupur 220kV Transmission Line and Associated Substations at Khudi & Manang					Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause				
105	Common	Vol-II Part B	Chap-21	Cl-4.23	As per referred clause it is mentioned that "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" However same shall be Intellectual property of Manufacturer & no such information shall be furnished. Please accept.	Bidder is to quote as per provision of bidding documents.		
106	Common	Vol-II Part B	Chap-21	Cl-4.31	As per referred clause it is mentioned that "Temperature rise of current carrying parts shall be limited to the values stipulated in IEC- 62271-1, under rated current and the climatic conditions at site. The temperature rise for all enclosures shall not exceed 20°C above the ambient temperature of 50°C. These conditions shall be taken into account by the supplier in the design of the equipment " However, as per IEC-62271-1, the temperature rise for accessible enclosure shall not exceed 20°C above the ambient temperature of 50°C. In the case of enclosures, which are accessible but need not be touched during normal operation, the temperature rise limit shall be permitted upto 30°C above the ambient of 50°C as per IEC." Please accept.	Bidder is to quote as per provision of bidding documents.		
107	Common	Vol-II Part B	Chap-21	Cl-4.35	As per referred clause it is mentioned that, "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.)" However as material codes are country based codes, for pressure Vessel code, we shall follow codes Equivalent to EN code (ENAC-42100)/ASME/CENELEC based on GIS Manufacturer. We shall furnish pressure test reports for enclosures as per Cl. 6.103-IEC 62271-203:2011. Please accept.	Bidder is to quote as per provision of bidding documents.		
108	Common	Vol-II Part B	Chap-21	Cl-4.36.3	As per referred clause, it is mentioned that "The grounding continuity between each enclosure shall be effectively interconnected externally with Copper/Aluminum bonds of suitable size to bridge the flanges". However as per Cl-4.36., it is mentioned that "All flexible bonding leads shall be tinned copper". As both the clauses are contradicting each other request you to confirm the actual requirement.	Bidder is to quote as per provision of bidding documents.		
109	Common	Vol-II Part B	Chap-21	Cl-4.37	As per referred clause, it is mentioned that "Contractor shall provide adequate number of UHF sensors in the offered GIS for detection of Partial discharge (of 5 pC and above) as per IEC 60270.....supplied & installed to complete the technical requirement." However, number of UHF sensors & the location of UHF sensors shall be as per manufacturer's recommendations. Please note that the locations of sensors shall be decided during detailed engineering itself to achieve the desired sensitivity & the same will be reflected on the drawings which will be submitted for approval. No change on the same recommended at site. Please accept the same.	Bidder is to quote as per provision of bidding documents.		
110	Common	Vol-II Part B	Chap-21	Cl-4.38 (1&4)	As per referred clause it is mentioned that "Maximum weight of gas in a gas tight section of GIB shall not exceed 250 Kg (for 220 kV & 132kV) & The minimum outer to outer horizontal clearance between each GIS bus duct shall be 0.5 meter for 220 kV & 132 kV voltage level". However, the weight and the clearances between bus ducts are driven by the equipment dimensions and manufacture specific. Request to accept the same in line with manufacturer's standard dimensions.	Bidder is to quote as per provision of bidding documents.		
111	Common	Vol-II Part B	Chap-21	Cl-4.38 (6)	As per referred clause, it is mentioned that, "The horizontal clearance between GIB and GIS building /any other building wall shall be minimum three (3) meters. It shall be noted that, for GIB Support structure, 1 metre distance will be sufficient from wall to GIB duct, however minimum required space between building to GIB shall be decided during detailed structure designing for an optimum layout and also to accommodate the future feeder GIB. Please accept.	Bidder is to quote as per provision of bidding documents.		



Project Manager



Clarification-I

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udipur 220kV Transmission Line and Associated Substations at Khudi & Manang					Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause				
112	Common	Vol-II Part B	Chap-21	Cl-4.40.2	As per referred clause it is mentioned that, "as the GIS is likely to be extended in future, the contractor shall make available during detailed engineering stage, the complete design detail of interface module such as cross section, enclosure material, enclosure dimensions (inner & outer), Flange diameter (inner & outer), conductor connection arrangement, bolt spacing & dimension, rated gas pressure etc." However, the data for future extension shall be inline to the provision of IEEE C37.122.6 and shall be provided during detail engineering. The Supply of any material for future extension is excluded from our Scope of supply. Please confirm.			Bidder is to quote as per provision of bidding documents.
113	Common	Vol-II Part B	Chap-21	Cl-4.5	As per referred clause it is mentioned that "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." However the burn-through period is categorically defined in the IEC for the respective fault levels (Table 4 of IEC 62271-203) and same shall be complied accordingly. Request you to accept.			Bidder is to quote as per provision of bidding documents.
114	Common	Vol-II Part B	Chap-21	Cl-5.5.7	As per referred clause, it is mentioned that "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." However, auxiliary switches are of standard design/size suitably designed for the available space. Hence the required additional 8 NO (Normally open) and 8 NC (normally closed) contacts shall be provided to customer through contact multiplication relays at LCC. Please accept.			Bidder is to quote as per provision of bidding documents.
115	Common	Vol-II Part B	Chap-21	Cl-6.2.12	As per referred clause it is mentioned that, "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." However, if the disconnectors and the safety grounding switches are separate modules in GIS design, only electrical inter-locks shall be provided between them and required padlocking facility shall be provided for the manual interlocking for additional protection. Please accept.			Bidder is to quote as per provision of bidding documents.
116	Common	Vol-II Part B	Chap-21	Cl-6.2.16	As per referred clause it is mentioned as follows: "All the disconnecting switches shall have arrangement allowing easy visual inspection of the travel of the switch contacts in both open and close positions, from the outside of the enclosure" However, it is not possible to provide inspection windows/endoscopy ports for disconnector due to safety limitations. Kindly accept.			Bidder is to quote as per provision of bidding documents.
117	Common	Vol-II Part B	Chap-21	Cl-6.2.2	As per referred clause it is mentioned that, "Disconnectors shall be suitable to switch the bus charging currents during their opening and closing and shall confirm to all three test duties viz TD1, TD2 and TD3 as per Annexure -F of IEC: 62271- 102" However TD2 duty is not applicable as the CB is not equipped with parallel capacitors, the same is in line with IEC. Please confirm.			Bidder is to quote as per provision of bidding documents.
118	Common	Vol-II Part B	Chap-21	Cl-6.2.9	As per referred clause it is mentioned that "Each disconnector shall be supplied with auxiliary switch having additional 4 NO (Normally Open) and 4 NC (Normally Closed) contacts for future use over and above those required for switchgear interlocking and automation purposes. These spare NO and NC contacts shall be wired up to the local control cabinet." However auxiliary switches are of standard design/size suitably designed for the available space. Hence the required additional 4 NO (Normally open) and 4 NC (normally closed) contacts shall be provided to customer through contact multiplication relays at LCC. Please accept.			Bidder is to quote as per provision of bidding documents.

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Project Manager

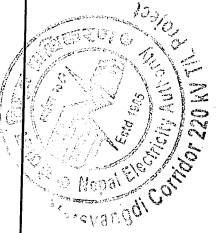


Clarification-I

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udupur 220kV Transmission Line and Associated Substations at Khudi & Manang					Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause				
119	Common	Vol-II Part B	Chap-21	CI-7.2	As per referred clause it is mentioned that "Each safety grounding switch shall be electrically interlocked with its associated disconnectors and circuit breaker such that it can only be closed if both the circuit breaker and disconnectors are in open position. Safety grounding switch shall also be mechanically key interlocked with its associated disconnectors."			Bidder is to quote as per provision of bidding documents.
120	Common	Vol-II Part B	Chap-21	CI-7.6	As per referred clause, it is mentioned that, "Each ground switch shall be fitted with auxiliary switches having 4 NO (Normally Open) and 4 NC (Normally Closed) contacts for use by others over and above those required for local interlocking and position indication purposes."			Bidder is to quote as per provision of bidding documents.
121	Common	Vol-II Part B	Chap-21	CI-8.9	As per referred clause, it is mentioned that "Each high speed ground switch shall be fitted with auxiliary switches having 4 NO (Normally Open) and 4 NC (Normally Closed) contacts for use by others, over and above these required for local interlocking and position indication. All contacts shall be wired to terminal blocks in the Local Control Cabinet. Provision shall be made for padlocking the ground switches in their open or closed position".			Bidder is to quote as per provision of bidding documents.
122	Common	Vol-II Part B	Chap-21		However, auxiliary switches are of standard design/size suitably designed for the available space. Hence required additional 4 NO (Normally open) and 4 NC (normally closed) contacts shall be provided to customer through contact multiplication relays at LCC. Please accept.			
123	Common	Vol-II Part B	Chap-3	CI-4.1.1	We are following CT/PT parameters of 220kV & 132kV as per Table -3A, 3B & 3C. However, Knee point voltage & Max. CT winding resistance shall be finalised during detail engineering based on manufacturer feasibility. Kindly accept.			Bidder is to quote as per provision of bidding documents.
124	Common	Vol-II Part B	Chap-6	CI-1.1	As per referred clause, it is mentioned that "The gap between the open contacts shall be such that it can withstand atleast the rated phase to ground voltage for 8 hours at zero gauge pressure of SF6 gas due to the leakage"			Bidder is to quote as per provision of bidding documents.
125	Common	Vol-II Part B	Chap-7		However Test procedure for eight hours withstand at zero pressure is not mentioned anywhere in IEC. Please confirm.			
126	Manang	Vol-III		SN. B2.1.1	As per referred clause it is mentioned that "The entire control room building, fire fighting pump house,, Indoor Switchyard Building lighting shall be done by LED based low power consumption luminaires to achieve desired lux level specified. The bidder shall quote on lumpsum basis on the basis of design criteria specified for each control room building and fire fighting pump house." However as per CI- 2.2.1.4, CI- 2.2.1.5.1 to 2.2.1.5.4 & Annexure-1, only CFL Lamps are mentioned. Hence please check and confirm the exact requirement.			The entire control room building, fire fighting pump house,, Indoor Switchyard Building lighting shall be done by LED based low power consumption luminaires to achieve desired lux level specified. LED fixturers shall complied relevant international standard.
					In referred clause of technical specification, IS-60076 is mentioned as the applicable standard. However, as per recent amendments by Bureau of Indian Standards / Bureau of Energy Efficiency & notified in Gazzette, all manufacturers are instructed to manufacture distribution class transformers in line with IS 1180 only. As per the gazette notification, total loss figures of distribution transformers are indicated for loading conditions only (50% and 100%). Separate iron & copper losses are not indicated. Further, loss figures are pre-defined in gazette amendment for various ratings, corresponding to appropriate star ratings. Hence, we request NEA to check and confirm the star rating (as per IS 1180) required for this project.			Bidder is to quote as per provision of bidding documents.
					As per referred item, 25 Nos. of 216kV Outdoor Surge arrester shall be provided. However, in Single line diagram, CIENG-SS/NEA/Manang GIS/SLD/01, 18 Nos of 220KV Outdoor Surge arresters are shown for line bays alone. We presume that Outdoor type Surge Arrestors are required for Transformer bays also and BPS shall be followed.			For 6 line bays & 2 Transformer bay 24 number S.A are required. 1 S.A is required for spare transformer. Total 25 number of S.A ar required. Bidder is to quote as per BPS

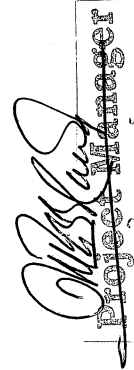


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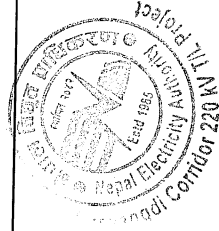


Clarification-1

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udipur 220kV Transmission Line and Associated Substations at Khudi & Manang				Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause			
127	Khudi	Vol-III		SN. B2.1.1	As per referred item, 31 Nos. of 216kV Outdoor Surge arrester shall be provided. However, in Single line diagram, C/ENG-G-SS/NEA/Khudi/SLD/01, 24 Nos of Outdoor 220kV surge arrester are shown in line bays alone. We presume that Outdoor type Surge Arrestors are required for Transformer bays also and BPS shall be followed.	Please quote as BPS.	
128	Manang & Khudi	Vol-III		SN. C	Kindly provide Layout / dimensions (Plan & Section) for each of the below stated buildings for both Sub-stations, as applicable, for design & estimate Illumination system: 1) Township quarter (B-type, 4 nos.) 2) Township quarter (C-type, 4 nos.) 3) Township quarter (D-type, 1 nos.) 4) Recreation hall cum staff community hall 5) Transit Camp 6) Car Parking 7) Volley ball court 8) Badminton court	Bidder is to quote as per provision of bidding documents.	
129	Khudi	Vol-III		SN. D2.ii	As per referred BPS line item, 33kV termination kit suitable for 1Cx400 Sq.mm XLPE cable shall be 36 Nos. We presume that as per SLD & Chapter-1, Project specific requirement, 3.2.2.1.3.s, Page 26 of 72, single run of 1Cx400 Sq.mm XLPE copper cable shall be terminated for 6 Nos. of 33kV Line bays & two run of 1Cx400 Sq.mm XLPE copper cable shall be terminated for 1 No. of Incomer (Trafo) bay. Hence, it shall be $8*3=24\text{Nos} + 3*3*2 = 18\text{Nos}$. In total, 42 Nos. of Outdoor Terminations are required as per BPS. Please confirm.	33 kV outdoor cable termination at Khudi : 24 for 8 lines, 6 for one one number of 132/33 kV Transformer+6 spare: Total 36 number. Please note that spare cable termination kits has to be in special package so that it can be stored minimum 5 (five) years.	
130	Manang & Khudi	Vol-III		SN. D2.ii	There is no separate line item for 33kV GIS end terminations (suitable for 1Cx400 Sq.mm cable) for Line & Transformer bays. Kindly check and confirm.	GIS end cable termination are part of respective panel. Please refer S.No 19, clause 7.0 of Chapter 22: 33kV & 11kV Indoor Switchgear (GIS Type).	
131	Manang & Khudi	Vol-III		SN. D3.ii	There is no separate line item for 33kV Outdoor & GIS-end terminations (suitable for 3Cx120 Sq.mm cable), required at LT transformer bay. Please include & revise BPS accordingly.	GIS end cable termination are part of respective panel. Please refer S.No 19, clause 7.0 of Chapter 22: 33kV & 11kV Indoor Switchgear (GIS Type).	
132	Manang & Khudi	Vol-III		SN. D4	We presume based on referred line item that, Quantities of 33kV Isolators, Surge arresters, BPI are given including Line bays, Incomer bay & LT transformer bay also. Please confirm.	Please quote as per BPS	
133	Manang & Khudi	Vol-III		SN. E.ii.a, b & c	We presume that Portable Partial Discharge(PD) monitoring system under cl. 26.3.1 is applicable for both 220kV & 145kV GIS. Please confirm.	Bidders understanding is generally in order.	
134	Manang	Vol-III		SN. G.2.a	As per referred item, 132kV Circuit breaker relay panel without auto-reclose - 10 Sets are mentioned. However, as per Bid price schedule S.No.1.02.1.03, 1.04 & 1.05 - 6 Nos of 132kV Lines bays, 2 Nos. of 220/132kV ICT bay, 1 No of 132/33kV ICT bay and 1 No of Buscoupler bay are in scope of work. Hence, 132kV circuit breaker relay panel with auto-reclose shall be 6 Nos & 132kV Circuit breaker relay panel without auto-reclose shall be 4 Nos. Please confirm & revise the schedule accordingly.	As 132 kV lines are Cable+Over head type. Therefore Auto-reclose is not envisaged.	
135	Common	Vol-II Part B	Chap-9	Cl-1.1.6	As per referred clause, 1x400W / 1x250W and 2x400W & 2x250W flood light shall be provided for switchyard area is mentioned in our scope of supply. However, due to non-availability / not-in-manufacturing range with Light fitting manufacturers, we propose equivalent LED instead of HPSV Lamps (applicable for GIS Building, Switchyard & Street lighting). Please confirm.	Bidder is to quote as per provision of bidding documents.	
136	Common	Vol-II Part B	Chap-9		As the power & control cables are lump-sum items, please clarify whether the sizes & number of cores can be changed to suit the actual requirement?	Bidder is to quote as per provision of bidding documents.	
137	Manang & Khudi	Vol-II Part B	Drawing		We presume that the locations of towers for 220kV Lines in Manang & Khudi stations are only tentative and the same can be changed by Bidder according to the Layout requirements based on Line orientation. Please confirm.	The locations of towers for 220kV Lines in Manang & Khudi stations are only tentative and the same shall be finalised during detailed Engineering.	



Project Manager

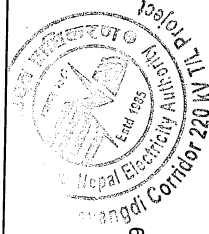


Clarification-I

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udipur 220kV Transmission Line and Associated Substations at Khudi & Manang					Bidder's Queries		NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause				
138	Manang & Khudi	Vol-II Part B	Drawing		As per referred layout, control room is shown as separate building. However, as per Chapter-14, Civil Works, cl.no.21.0 it is mentioned as "Control room building, if attached to GIS hall, shall be of pre-engineered steel structure similar to GIS hall and shall be RCC framed structure, if it is not connected with GIS hall."	Kindly confirm the requirement.	Bidder is to quote as per provision of bidding documents.	
139	Common	Vol-II Part B			Kindly provide the EOT crane capacity to be considered for 245kV & 145kV GIS of Manang & Khudi substation.		EOT Crane each for GIS hall shall be of suitable capacity for erection & maintenance of largest GIS component/assembly. The crane shall consist of all special requirements for erection & maintenance of GIS equipment	
140	Common	Vol-II Part B			Please confirm whether the following items are not required for Manang substation. i) Terrain mobile crane with lifting capacity (220-250) Ton ii) Magnetic field measurement equipment iii) Electric field measurement equipment		Bidder is to quote as per provision of bidding documents.	
141	Common	Vol-II Part B			We are not envisaging Visual monitoring system for GIS and Switchyard for Manang & Khudi GIS substation as there is no line item in BPS as well as Chapter-1 Project specific requirement. Please confirm.		Bidders understanding is generally in order. Bidder is to quote as per provision of bidding documents.	
142	Khudi	Vol-III		SN. G.2.a	As per referred item, 132kV Circuit breaker relay panel without auto-reclose - 10 sets are mentioned. However, as per Bid price schedule S.No.1.02, 1.03, 1.04 & 1.05 - 6 Nos of 132kV Lines bays, 2Nos. of 220/132kV ICT bay, 1No of 132/33kV ICT bay and 1 No. of Buscoupler bay are in scope of work. Hence, 132kV circuit breaker relay panel with auto-reclose shall be 6 Nos & 132kV Circuit breaker relay panel without auto-reclose shall be 4Nos. Please confirm & revise the schedule accordingly.		As 132 kV lines are Cable+Over head type. Therefore Auto-reclose is not envisaged.	
143	Manang & Khudi	Vol-III		SN. U.b, Part-B-D.1.iii	As per referred item, area of 33kV AHU/Panel room shall be 50 Sq.m & air conditioning system shall be provided for panel room in 36kV GIS hall. However, as per Chapter-22, 33 kV & 11 kV Indoor GIS, cl.no.3.08, Numerical IED shall be mounted in 33kV GIS switchgear itself. Hence separate panel room for 33kV are not required. Please confirm.		For 36 kV protection is inclusive alongwith switchgear and therefore no separate item is mentioned for C&R. However based on standard practice of individual manufacturer, it may be in one panel or in separate panel. In case C&R items are mounted in separate panels, same may be kept in panel room. Therefore 33kV/AHU/panel room area is kept in bidding document.	
144	Manang & Khudi	Vol-III	Sch-4(a)	SN. 10, 11, 12, 13 & 29	As per price schedule, GIS Building, control cum administrative building, transit camp, Quarters buildings, Car parking shed, Store building, security room, Recreation hall & Gym hall for staff community, Valley ball & Badminton court, control panel room building shall be in bidders scope. However in the furnished layout drawing only GIS building, control building & FFPH location indicated. Please furnish the layout drawing indicating the location of above building along with substation boundary dimension, in order to check the adequacy of proposed substation area.		Layout shall be finalized during detail engineering.	
145	Khudi	Vol-III		SN. B, 1.07 7 1.08	As per referred item, it is mentioned as 245kV, 1600A, SF6/Air bushing - 22 Nos & 245kV, 2000A, SF6/Air bushing - 6 Nos. However, as per Single line diagram, 220kV Line bays - 8 Nos. & 220/132kV Transformer bays -2Nos. including spare transformer bay are in scope of work. Hence, in total 31 Nos. of SF6 to Air bushings (including for spare transformer) are required. Kindly check and revise BPS accordingly.		Please refer Amendment-I.	



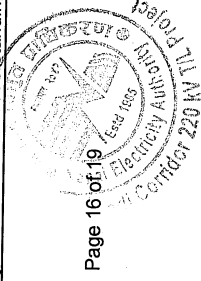
Project Manager



Clarification-I

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udipur 220kV Transmission Line and Associated Substations at Khudi & Manang					NEA's Reponse	
S.N.	Substation	Vol	Sec/Chap	Clause	Bidder's Queries	
146	Common	Vol-II Part B	Chap-21	Cl-19.6	As per referred clause, it is mentioned that "The scope of such a design review shall at least include the following: 1. Dielectric Stress of Solid Insulation like Gas Barrier, support insulator etc. 2. Dielectric stress of SF6 Gas Volume. 3. Mechanical strength of enclosure, expansion joints etc. 4. Criteria for providing expansion joint. 5. Sealing system 6. Insulation coordination 7. Thermal stress and resulting increase in gas pressure during short circuit condition. 8. Earthing of enclosure w.r.t circulating current. 9. Seismic design, as per IEC 62271-207 10. Circuit Breaker 11. Isolator and Earth switch. 12. Voltage transformer. 13. Current Transformer. 14. Surge Arrester. 15. Bushing. 16. Ducting. 17. Corrosion protection. However, the above documents are Intellectual property of Manufacturer & no such information shall be demonstrated. We shall consider adequate design provisions considered in our offered GIS. Please accept.	Bidder is to quote as per provision of bidding documents.
147	Common	Vol-II Part B	Chap-21	Cl-19.7	As per referred clause, it is mentioned that " the manufacturer shall furnish the following information a) 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 else-where. 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" However, the above documents are Intellectual property of Manufacturer & no such information shall be demonstrated. We shall consider adequate design provisions considered in our offered GIS. Please accept.	Bidder is to quote as per provision of bidding documents.
148	Manang	Vol-III		SN. B2.1.1	216 KV Surge Arrester (1-phase) We understand that Surge arrester quantity are 30 as per BPS. However as per tender SLD, quantity shall be 22. Please confirm the quantity once again for our better understanding.	Bidders is to quote as per BPS.
149	Khudi	Vol-III		SN. B2.1.1	216 KV Surge Arrester (1-phase) We understand that Surge arrester quantity are 31 as per BPS. However as per tender SLD, quantity shall be 28. Please confirm the quantity once again for our better understanding.	Bidders is to quote as per BPS.

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Project Manager



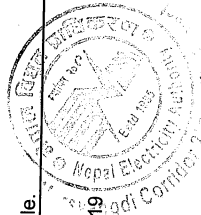
Bidder's Queries

W. H. C. C.

Project Manager

Clarification-1

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udupur 220kV Transmission Line and Associated Substations at Khudi & Manang					NEA's Response	
S.N.	Substation	Vol	Sec/Chap	Clause	Bidder's Queries	
156	Manang & Khudi	Vol-III	Sch-4(a)	SN. 10,	As per BPS line item. 10, "All civil works including internal finish as well as external finish for following buildings as per technical specification and approved drawings but excluding excavation, PCC, RCC and reinforcement steel (Fe-500), which shall be paid measured and paid separately under respective items of BPS."	External finishing is not a separate item, whatever mentioned in specification, external finish shall be included in civil works for each building. Therefore, please quote as mentioned in Schedule 4 (a) part C Sl. No B-10 for Manang and Khudi substations.
157	Manang & Khudi	Vol-II Part B	Chap-1		However separate item for external finish is not in BPS, Hence we trust that external finish shall be included in civil works for each building. Please confirm	
158	Manang & Khudi	Vol-II Part B	Chap-1		As per referred clause, 50mm thk. Puff sandwiched panel to be provided for roof & wall sheeting. Please clarify, whether the same to be used for the areas with temperature of -10° C.	It shall be as per the provision of bidding document.
159	Manang & Khudi	Vol-III	Sch-4(a)	SN. S.(a) A.a)(i)	As per referred clause, minimum Air temperature is -10° C for Manang & -5° C for Khudi. Please clarify whether we have to provide Grade C Steel for galvanised structural steel (lattice) works, when mild steel is need adopted as per IS:2062.	According to IS code 2062, Impact test mandatory at -20 degree C
160	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.4.(f) & 3.2.2.2.(f)	We trust that, lattice structure Qty, given in referred Sl no. S.(a) & A. a).(i) shall be inclusive of LM structure also. Please confirm.	It shall be as per the provision of bidding document.
161	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5 & 3.2.2.3	As per referred clause, pipe structure to be provided for equipment support structure.	
162	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5 (k) & 3.2.2.3 (j)	We understand that, pipe structure as per material grades Yst 210, 240 & 310 available as per IS: 1161 would not be suitable as main load carrying members for areas with temperature of less than -5° C.	It shall be as per the provision of bidding document.
163	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5 & 3.2.2.3	Please clarify, whether pipe structure can be adopted for areas less than -5° C or structure type to be changed to lattice type.	
164	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5 & 3.2.2.3	Please furnish the contour map indicating ground levels with FGL for the proposed substations, if available.	It is under the scope of Contractor and shall be finalised during detail engineering.
165	Manang & Khudi	Vol-II Part B	Chap-14	Cl. No. 11.7	As per referred clause, the underground water tank is in bidders scope. Whereas item for the same is not included in price schedule.	If underground water tank is required, items like Excavation, PCC and Reinforcement shall be paid in respective items in BPS.
166	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5 & 3.2.2.3	We presume that, item (i.e., excavation, PCC, RCC & Reinforcement) shall be paid in respective items of BPS. Please confirm.	As per the provision of bidding document.
					We trust that, diversion of the existing road, water stream or nalla (if any) in proposed area is not in bidder scope. Please confirm.	As per the provision of bidding document.
					If in bidder scope, please include the item for the same in price schedule.	
					It is mentioned in the referred clause that the spread footing foundation or pile foundation as may be required based on soil/sub-soil conditions and superimposed loads shall be provided.	
					However item for the pile foundation is not included in price schedule.	
					If it is envisaged during detailed engineering stage, we trust that pile shall be paid as an additional item and excavation, PCC, RCC & Reinforcement shall be paid in respective items of BPS. Please confirm	Pile foundation has not been envisaged. Therefore, bidder is to quote as per the BPS.
					We trust that Rain water harvesting is not in bidder's scope. Please confirm.	
					If in bidder scope, please add the item in price schedule.	As per the provision of bidding document.



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Project Manager

Clarification-1

Procurement of Plant, Design, Supply, Installation and Commissioning of Manang - Khudi - Udupur 220kV Transmission Line and Associated Substations at Khudi & Manang

S.N.	Substation	Vol	Sec/Chap	Clause	Bidder's Queries	NEA's Reponse
167	Manang & Khudi	Vol-III	Sch-4(a)	SN. 10,11 &29	As per price schedule , the Quarters building (B,C,D type), Transit camp, Recreation hall & Gym hall, car parking shed, control panel room building, security room are in bidders scope. Please provide the following drawings to estimate the finishes quantity of the buildings. 1. Building Plan with room dimension. 2. Elevation of drawing. 3. Section details.	The design and drawings are in the scope of Contractor. Hence same shall be provided by the Contractor during detail engineering.
168	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 5.2.(e)	As per referred clause, seismic requirement for proposed substation is 0.5g which is very Severe. We understand that, as per relevant codes ductile detailing of the steel building (PEB) is mandatory. Please confirm.	It shall be as per the provision of bidding document.
169	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5.(t) & 3.2.2.3.(s)	As per scope of work, construction of random rubble masonry boundary wall is in bidder's scope. However, the same shall be paid in RM basis. Please furnish the drawing for the same in order to estimate the quantity.	Please refer the Amendment-I
170	Manang & Khudi	Vol-II Part B	Chap-1	Cl. No. 3.2.1.1.5.(k), 3.2.2.3.(i)	As per scope of work, Residential (Township) quarters is in bidder scope. However in price schedule there is no separate road item given for residential area. We trust that, no road is required in the residential area. Please confirm. If it is required. Please include the item for the same in price schedule. Also furnish the road drawing (Drg. No. C/ENGG/STD/MD25/ROAD/410 (Details of concrete road Rigid Pavement in Township Area) as listed in annexure-I of chapter-1. We trust that excavation, PCC, RCC and reinforcement steel for line item. 29(i.e. Security room) shall be measured and paid separately under respective items of BPS. Please confirm. As per referred clause, approach road is in bidder's scope.	5.5m wide concrete road is for approach road inside sub station boundary and inside switch yard while 3.75 m wide concrete road is for Residential (Township) quarters.
171	Manang & Khudi	Vol-III	Sch-4(a)	SN. 29	Approach road from existing main road to proposed site boundary is to be constructed with suitable gradient, in order to reach the proposed bench level of substation with respect to the existing road level. This would require formation of side embankment, Retaining wall, slope protection. The payment for the road (i.e., inside and outside boundary (approach road)) shall be paid in Sq. m basis under SI.no: 14.(a), (b) & 32 for Manang and SI. no: 14.(a) & (b) for Khudi substations.	Bidders understanding is generally in order
172	Manang & Khudi	Vol-III	Sch-4(a)	SN. 14.(a),(b) & 32	We trust that, the road quantities would be paid in SI.no:14.(a), (b) & 32 for Manang and SI. no: 14.(a) & (b) for Khudi substations & other Civil works as required for Gradient formation such as side embankment, Retaining wall, slope protection would be paid at actuals in SI no: 27, 30, 36 for Manang and SI no: 27, 30,35 for Khudi substation. Please confirm.	As per the provision of bidding document.



[Signature]

Project Manager