

KOSHI CORRIDOR 220 KV TRANSMISSION LINE PROJECT
TRANSMISSION DIRECTORATE
NEPAL ELECTRICITY AUTHORITY

Procurement of Plant Design, Supply and Installation of 220 kV Basantapur (Terhathum District)- Dhungesangu (Taplejung District) Double circuit Transmission Line and 132/33 kV Substation in Dhungesangu (Taplejung) District.

Bid/Contract Identification No: KOSHI/NEA/KC-3

Clarification No. 3

Sl.No.	SECTION/CLAUSE NO.	Comment/Question Of Bidder	CLARIFICATION given by NEA
1.	Part II, Section 6, Section VI, drawings, Drg.No:WAP/Power/Nepal/Koshi/KC3/02, SLD	As per SLD (Drg. No: WAP/power/Nepal/Koshi/KC3/02) & Schedule IB, short circuit rating of 33 KV equipments is mentioned as 25 KA for 3 seconds. However as per technical specification Part II, Section 6, Section III B & Section IV B, short circuit rating of 33KV equipment is mentioned as 25 KA for 1 second. As both are contradictory, please clarify the exact short circuit rating of 33 KV equipment to be supplied.	The short circuit rating of 33KV equipment shall be as 25 KA for 3 second as per SLD (Drg. No: WAP/power/Nepal/Koshi/KC3/02)
2.	Part II, Section 6, Section III B , Cl.2.28, Clamps & Connectors	As per the referred clause, clamps and connectors should conform to ANSI/NEMA CCI/ equivalent international standard. Please confirm whether bidder can use / propose clamps and connectors conforming to/ type tested as per Indian standard (IS. 5561)	Confirmed.




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3.	36 KV Circuit Breaker	As per the referred clause, clamps and connectors should conform to ANSI/NEMA CC1/ equivalent international standard. Please confirm whether bidder can use / propose clamps and connectors confirming to/ type tested as per Indian standard (IS. 5561)	Confirmed.
4.	Part II, Section 6, Section IV B, Cl. 4.16.1, Isolator type test Tap changer voltage variation	Please confirm whether bidder has to furnish ice loading test report on outdoor isolator.	Substation site does not fall under snowfall area.
5.	Part II, Section 6, Section IV B, Cl. 6.3.2, Maximum flux density in transformer	It is mentioned in Cl.6.3.2 of Part II, Section 6, Section IV B, that maximum flux density at 110% overvoltage condition shall not exceed 1.76 T. However in Cl. 6.3.3 of Part II, Section 6, Section IV B, maximum flux density is mentioned as 1.9 T. As both the clauses are contradicting, please clarify the requirement.	The maximum flux density at 110% overvoltage condition shall be 1.76 T as per Cl.6.3.2 of Chapter-6, Section IV B, Section 6, Part II- Employers Requirements.
6.	Part II, Section 6, Section IV B, Cl.6.22.7, Bushing type	Condenser type bushings are indicated for voltages above 72.5 KV in Cl. 6.22.7 of part II, Section 6, Section IV B. However as per Cl.1.6 of Part II, section 6, Section III B, OIP bushing is indicated for HV bushing. Please confirm whether both oil condenser type and OIP type are acceptable NEA.	The requirement is Condenser Type Oil Impregnated Bushing

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7.	Part II, Section 6, Section IV B, Cl.6.24.2 Tap changer voltage variation	As per the referred clause, voltage variation of tap changer is indicated as -5% to +15%. However as per Cl.1.6 of Part II, section 6, section III B, voltage variation is mentioned as +5% to - 15% in steps of 1.25%. Please confirm the exact requirement.	The voltage variation shall be in +5% to - 15% in steps of 1.25%. as per Cl.1.6 of Chapter-6, Section III B, section 6, Part II- Employer's requirements.
8.	Part II, Section 6, Section IV B, Cl. 8.1.1 Shield wire	7/4.15 mm Aluminium clad steel wires are mentioned in Cl. 8.1.1 of Part II, Section 6, Section IV B. However in Table. 1.13 (e) of Part II, Section 6, Section III-B, 7/4.115 mm Galvanised steel wire is indicated. As both the statements are contradicting, please confirm the exact requirement.	Aluminium clad steel wires size in Table. 1.13 (e) of Part II, Section 6, Section III-B, 7/4.115 mm Galvanised steel wire shall be read as 7/4.15 mm
9.	Part II, Section 6, Section IV B, Cl. 9.02, NLDC integration	As per the referred clause, we presume that our scope is limited to supply of gateway at our substation end & ensuring data transmission in IEC 101 protocol to NLDC. Communication infrastructure, supply and commissioning of equipments at remote end for NLDC SCADA are not envisaged. Please confirm.	(a), (b) & (c) Integration work at Basantapur and NLDC via. Inaruwa has to be carried out by the contractor to establish the communication between the substations and deemed to be included in the present scope of the contract. However, the FOTE equipment for remote end substations is considered in the scope of work of another project.
10.	Part II, Section 6, Section IV B, Cl. 9.16.5, NLDC integration	As per the referred clause, following works are indicated: (a) Integration of Dhungesangu SAS with NLDC SCADA (Siemens make) (b) Augmentation / Integration works at Inaruwa station (c) Augmentation / Integration works at	



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11.	Part II, Section 6, Section IV B, Cl. 9.4.6.2, Monitoring of lighting status in SAS	<p>Basantapur</p> <p>We presume the above works are beyond purview of this bid as per Cl. 9.02 of the same specification. Hence we request to issue suitable amendment/ clarification in this regard.</p> <p>AS per the referred clause, adequate number I/O cards have to be provided for control & monitoring of station auxiliaries including lighting status. As a general practice, lighting equipment status are not monitored in SAS and we presume that adequate number of I/O cards shall be provided only for monitoring of other station auxiliaries except lighting system. Please confirm.</p>	Confirmed.
12.	Part II, Section 6, Section IV B, Cl. 9.4.6.2, Provision for future bays in SAS	<p>Kindly furnish the number of future bays for which offered SAS should be compatible.</p>	The no. of future bays were clearly indicated in the Single Line diagram
13.	Part II, Section 6, Section IV B, Cl. 10.28.2, Busbar protection	<p>As per the referred clause, it is mentioned that single static busbar protection to be provided for each 132 KV main bus. In this regard, please clarify whether bidders can propose latest generation numerical busbar protection scheme, capable of communicating in IEC 61850 protocol with SAS.</p>	Confirmed



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14.	Part II, Section 6, Section IV B, Cl. 11.6.1 (viii), FOTE equipment	As per the referred clause, SDH equipment with STM 1 has to be supplied; As per Cl. 1.1.2.1 (R) of Section I, STM 4 is mentioned; As per Sl. no: 10.1 of Price Schedule IB, STM 1/4 equipment is indicated. As the above clauses are contradictory, please clarify the requirement.	The bit rate shall be STM-1 (upgradable to STM-4) as per Part II, Section 6, Section IV B, Cl. 11.6.1 (viii), FOTE equipment.
15.	Part II, Section 6, Section IV B, Cl. 12.3.2.i, ACDB	As per the referred clause, it is mentioned that busbar of ACDB shall be made of copper. However as per Cl. 1.9(Table 1.9(a)) of Part II, Section III B, Aluminium busbar is mentioned. As both the clauses are contradictory, please confirm the exact requirement.	The Busbar of ACDB shall be made of copper as per Part II, Section 6, Section IV B, Cl. 12.3.2, (i)
16.	Part II, Section 6, Section IV B, Cl. 18.5.13, Insulator hardware	Kindly confirm/ furnish the following points: a) Whether bidder can propose long rod polymer insulator instead of disc insulator. b) Number of strings (Double/single) to be considered for suspension and tension purpose of 132 KV & 33 KV	a) Only Disc insulator. Please refer technical Specifications. b) Shall be decided during the detailed engineering.



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17.	Part II, Section 6, Section IV B, Cl. 18.5.13, Electromechanical strength of insulator	As per the referred clause, electromechanical strength for tension and suspension purpose is indicated as 160 KN and 90 KN respectively for both 132 KV & 33 KV system. However as per Cl. 6.1.3.1 of part II, Section 6, 160 KN EMS is mentioned. Please clarify the exact requirement.	Please follow Part II, Section 6, Section IV B, Cl. 18.5.13, Electromechanical strength of insulator
18.	Order of precedence	Technical requirements for the tender are specified in 3 broad categories- 1) Bid Price Schedule; 2) Technical specifications (Section III B & Section IV B); 3) Tender drawings like SLD & Layout. In case of contradictions among these documents, please inform the order of precedence- which one will prevail over others.	Refer Article 1.1 in Contract Form of Section 9 of Part III.
19	Volume-II ; Section IVB, Chapter VI, clause no 6.2 ; The power Transformers are single phase ONAN/ONAF type, it is also mentioned that individual single phase Transformers are with capacity of 5MVA ONAN/ONAF	It is not clear, whether the 5MVA rating in ONAN Cooling system or ONAF cooling system. More over Substation Layout plan (Tender Drawing) the Transformers are noted as 5MVA ONAN only. So, Kindly clarify the ambiguity of transformer capacity and cooling arrangement.	The rating of the single phase transformer shall be 132/33 kV 5 MVA, ONAN Cooling system. ONAF cooling arrangement is not envisaged for the proposed Power transformer.

