

NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE

Power Transmission and Distribution System Strengthening Project
Kathmandu Valley West Distribution System Enhancement Project

PMD/PTDSSP/ KVWDSEP -75/76-01: Design, Supply, Installation and Commissioning of Underground Distribution Network under Kirtipur, Kuleshwar, Baneshwar, Balaju and Jorpati Distribution Center including Reinforcement and Automation

Clarification II

S. NO.	CL. NO.	DESCRIPTIONS	Bidder's Quires	NEA's Response
BOQ				
1	1.1,1.2,1.3,1.4,1.5 SERVICE CABLE	Service cables	Please note that specification for the service cables required CONCENTRIC LAYER OF NEUTRAL CONDUCTORS in the cables. Now, as per your reply the cables are ARMOURED. We are not sure which one of these we need to follow. We request you to kindly look into the matter and recheck the same. Also, some of the required Service cables are small. hence, the concentric conductors can not be provided.	Please Note that the Concentric Layer of Neutral of cable design shall be applicable only if design persist, twin Conductor (Line & Neutral) is also acceptable with armor.
11KV HT XLPE CABLES				
2	1.2, Genral Construction	XLPE insulation	XLPE insulation shall be provided as per IEC standard. TR-XLPE shall not be applicable. Kindly confirm.	Confirm
3	1.2, Genral Construction	Each Core Shall have a Polyethylene Sheath	Please note that Such major Technical Design parameters can't be left open at this stage. This will lead to ambiguity in the cable design. We request to kindly recheck our raised query and revert. Please note the required design is not practical for HT Cables. hence, can not be left alone till DDE.	Please provide as per IEC
4	1.5, Genral Construction	Cable sheath shall be embossed "ELECTRIC CABLE 11000V"	Please note that as per your confirmation on reply no. 40 and 41. the embossing shall be "ELECTRIC CABLE 10000V"	Please note embossing shall be "6/10 (12) kV".
5	1.15, Metallic Screen	Metallic Screen shall be of plain copper wires, helically applied over the radial moisture barrier. A binder tape of Copper shall be applied in form of an open helix over the copper wire.	Please note that IEC is merely a guide or general Standard for Cable Designing. This do not have any such information about Required Earth fault and time duration. This is a System parameter which shall vary from one client to another. Hence, providing such data is sole responsibility of End Client. We request you to kindly check on that. Also, the Short circuit rating of conductor mentioned by you shall be as follows: 150 Sq.mm : 14.1 kA for 1 sec. 300 Sq.mm : 28.2 kA for 1 sec. 400 sq.mm : 37.6 kA for 1 sec. NEA's Reply against point no 76 against same clarification raised by another bidder is creating conflict, whereas you have mentioned that 2.14 kA for 1 sec is to be matched by metallic screen (which is required for HT AB cables). Please Check and confirm the same as this clarification is for HT Cables not for HT AB.	Please note that Short circuit rating of conductor shall be as follows: 150 Sq.mm : 14.1 kA for 1 sec. 300 Sq.mm : 28.2 kA for 1 sec. 400 sq.mm : 37.6 kA for 1 sec. Also note NEA's Reply against Clarification point no 76, shall be read as above.
6	1.15, Metallic Screen	The Combination of metallic sheath (lead Sheath) in combination with wire screen shall be designed to meet the requirement of the system short circuit rating as specified in bidding documents.	Please note that Such major Technical Design parameters can't be left open at this stage. This will lead to ambiguity in the cable design. We request to kindly recheck our raised query and revert. Please note that LEAD Sheath is generally not required in 10 kV HT Cables and will make Huge impact on the PRICES of the cables. Hence, can not be left alone till DDE.	Please note that Lead sheath can be excluded in design, if short circuit can be meet by Copper Screening.

[Signature]

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7	Technical Data Sheets for HT Cables	8. Maximum System Voltage 10. Rated voltage between conductor and screen. 11. Rated voltage between two conductors 17. Operating Capacitance 23. Nominal Thickness of PVC Inner Sheath 26. Nominal Thickness of PVC Outer sheath 37. Fire Resistant Treated	8. Please refer to NEA Responses against Clarification 40 and 41. same shall be 10 kV 10. Noted & Closed. 11. as per our clarification point 8 above. 17. Please recheck the values of Capacitance and revert. 20. XLPE insulation shall be 3.4 mm as per IEC instead of 3.6 23 Noted & Closed 26 Noted & Closed 37 Noted & Closed	17 Please note capacitance value can be proposed as per design of the Cable. 20. Please note that it shall be as per IEC.
LT XLPE CABLES				
8	4, Conductor	Aluminum Conductor to form compacted and circular/ Shaped conductor.	Please note conductor for 1 core 630 shall be stranded compacted circular. However, conductors for 3.5 core 185 and 300 should be Stranded compacted sector shaped. This is the ideal conductor shapes for such items as per IEC. However, circular conductor for all the items can be provided but that will create HUGE IMPACT ON CABLE PRICES.	Conductor shall be Stranded Compacted Circular/shaped.
9	5, Insulation	The XLPE insulation shall be preferably fire resistant and resistant to chemical like acids, alkalis, oils and ozon.	Please note that same can not be provided as the properties does not exist in XLPE insulation compound. We are sure how's that can be achieved. We request you to kindly recheck or suggest.	Provide as per Specification
10	9, Armoring	The armor of the cables shall be either with Round Wire or Flat Strip	Please note that there is a conflict in case of armoring in your technical specification that's why the query was raised at first point. Also, both Round wire and Flat Strip are suitable for trouble-free operation and both have different PRICEING. We again request you to kindly check and confirm which shall be used.	
HT AB CABLES				
11	Table 1	No and Dia of messenger wires (no./mm)	Please note as per NEA technical specification messenger of 50 Sq.mm is required and we shall provide the same. Suitability of load bearing should have been considered & checked by NEA at the time of freezing of technical specification.	Please note that mechanical strength shall as per weight of your cable and span of the poles which are spaced at (40-60 m)
LT AB CABLES				

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12	Tolerance on the Drum Length		Please note that there is no such requirement of Drum length mentioned in IEC Standard. This is customer's requirement and we have mentioned the values which are generally required by our end clients. Please recheck the query and comment.	Please provide tolerance on the individual length $\pm 3\%$ and on overall length shall be $\pm 3\%$
13	Section 6.1 - Project Specific requirement, Clause 2.6.3	Supply of service cable shall include supply of other accessories required for laying of cable (PVC pipe of suitable size and strength, connectors, junction box as required).	The attached specifications are for uPVC/CPVC pipes. We understand that NEA requirement is for PVC pipe only. Please confirm.	Provide as per specification attached in Clarification I
14	Section 6.1 - Project Specific requirement, Clause 2.6.3	Supply of service cable shall include supply of other accessories required for laying of cable (PVC pipe of suitable size and strength, connectors, junction box as required).	Please provide revised specifications for PVC pipes to be used.	Provide as per specification attached in Clarification I
15	Vol III, Section IV, Schedule 1A & Vol II, Section 6.3, Specification of Equipment	Part A, I - HDPE Pipe	Please note that as per attached sheet 2, HDPE pipe shall be solid type with smooth outer surface. Therefore we understand that corrugated pipes are not required. Also corrugated pipes are not recommended for HDD works. Please confirm.	Please note that HDPE pipe with solid type with smooth outer surface can be provided
16	Vol. II - Section 6.3 - Specification of Equipment's C3. CABLE TERMINATION KIT AND JOINT KIT FOR XLPE.	1. Scope: This specification covers the design, manufacture, factory test, supply and delivery of heat shrinkable, push on type termination and joint kits for 11 kV, 3 core screened, armored, with aluminum conductor XLPE cables suitable for earthed system and confirming to relevant standard with latest amendment, if any.		Plases refer the specifications.
			Please clarify whether the project contains overhead lines	Please note project contains AB cables Installation.
			2 In BOQ, the number of "PCC Pole 11.0M Long" in "Schedule 1" is not consistent with "Schedule 4 (a)". Please clarify.	Please note fill as per BOQ
			3 Please specify the model of the household cable	Please design the cable sizes as per current rating of the consumers.
			4 Please specify the number of transformers and their installation methods	Please find the number of Transformer in BoQ, installation method shall be as per relevant Standard.
			Please clarify whether hardware samples are to be provided with the bidding documents as specified in Section 3 of the Bidding Documents.	Please note no samples are required to be submitted with bid.

Signature