

**NEPAL ELECTRICITY AUTHORITY**  
PROJECT MANAGEMENT DIRECTORATE  
**POWER TRANSMISSION AND DISTRIBUTION SYSTEM STRENGTHENING PROJECT (PTDSSP)**  
**POKHARA-BHARATPUR DISTRIBUTION SYSTEM REINFORCEMENT PROJECT**

PMD/PTDSSP/PBDSRP-077/78-01: Design, Supply, Installation and Commissioning of Underground Distribution Network under Pokhara and Bharatpur Distribution Center including Reinforcement and Automation.

BIDDER'S CLARIFICATION NO.-1		
S.No.	Reference to Tender Clause	

		Description	Bidder's Queries	Employer's Response
1	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, B 1	1-Core, 630 mm <sup>2</sup> , 33 kV, XLPE Armoured Aluminum cable	1. Short circuit current rating of Metallic Screen and Armour combined is mentioned as "More than 12KA for 1 sec" for 33kV cables. However Calculated size of Armour (As per IEC 60502-2) alone is sufficient to carry the required current rating. Kindly clarify if we can consider Armour as Metallic part of screening. In this case Metallic screen of copper tape/wire and separation sheath will not be provided. Kindly confirm. 2. Type Test details mentioned in clause 4.0 of C1, 33 kV XLPE POWER CABLE mentions FRLS tests which are applicable for FRLS material. Kindly clarify if FRLS properties are required for Outer sheath material as Clause 2.0 General requirement doesn't specify any such requirement.	1. The metallic screen shall be of plain copper wires, helically applied over the radial moisture barrier. A binder tape of annealed plain copper shall be applied in the form of an open helix over the copper wire screen. Minimum size of Armour and screen as per TS/IEC is to be provided. If the minimum size is not meeting short circuit requirement then sizes to be increased suitably. 2. Outer sheath shall have FRLS properties
2	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, B 2 1	1-Core, 100 mm <sup>2</sup> , 11kV XLPE Insulated AAA Conductor including Tension/Dead End Assembly, Suspension Assembly, Insulation Piercing Connectors, Tension Joints and other accessories as required as per TS	Request you to please provide BOQ line items for all types of installation accessories i.e. Tension/Dead End Assembly, Suspension Assembly, Insulation Piercing Connectors, Tension Joints for ease of billing at the time of execution.	Bidder to estimate the quantity as per the contract scope. The rate of the same shall be included in the respective item of BPS. No additional payment shall be made for Tension/Dead End Assembly, Suspension Assembly, Insulation Piercing connectors, Tension Joints and other accessories.
3	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, B 4	LT AB Cables along with Tension/Dead End Assembly, Suspension Assembly, Connectors and other accessories (as per Technical Specification)	Request you to please provide line items of accessories for ease of billing at the time of execution	Bidder to estimate the quantity as per the contract scope. The rate of the same shall be included in the respective item of BPS. No additional payment shall be made for Tension/Dead End Assembly, Suspension Assembly, Connectors and other accessories.
4	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, C	GO Switch with accessories	Request you to please provide the available specification and existing drawings available to better understand the philosophy of the equipment-integration with the system.	GO switch to be provided and integrated with the system as per TS.
5	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, H & I	UGFO, ADSS & Telecom Equipment	As the mentioned items are very sensitive we request you to please provide makes that is acceptable to NEA. Please provide specific makes for UGFO, ADSS and Telecom Equipment.	UGFO and ADSS shall be supplied from the original equipment manufacturers (OEMs) meeting the criterion set up in the Evaluation and Qualification Criteria (EQC) of the bid document. For telecom equipment, List of preferred MAKE is provided in Vol.-II, Chapter-1, Project Specific Requirement, Annexure-II.
6	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, H & I	UGFO, ADSS & Telecom Equipment	Specifications have mixed both cable construction dry dry construction (TEC/GR -22) Type IIIA (Without Ice loading) and Type IIIB (With Ice loading). Please confirm with which Type (III A or III B) cable required and with stripe or without stripe.	At the time of survey Type IIIA and IIIB Cable can be decided
7	Vol.-III :- Bid Price Schedule BOQ Schedule 1 - Part A, L	Interbranch metering units (CT, PT, control cable and other accessories) along with separate enclosure suitable to be mounted on the KVMU or Poles.	Request you to please provide specification	Specification is provided in Vol.-II (Part-A), Chapter-6, 1., Project Specific Requirement, Annexure-IV (Metering Arrangement)



*[Signature]*





Contract No. : PMD/PTDSSP/PBDSRP-07/78-01

Clarification No.-1

*[Signature]*

S.No.	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
21	Section 6.3 – Specification of Equipment and Construction Material - C2: 11 kV XLPE POWER CABLE	1.16 The armour of cables shall consist of aluminum wires or strips.	Kindly confirm Armour Material and thickness whether it shall be wires or strips.	Galvanized steel flat wire of appropriate thickness shall be used for armour in line with IEC.
22	Vol II : Section 6.3 – Specification of Equipment and Construction Material : C2: 11 kV XLPE POWER CABLE Clause No. 1.15	Wire screen shall be designed to meet the requirement of the short circuit rating of 2.14kA per phase per second	Please confirm that this shall be per core or all 3 core combined	The metallic wire-screen shall be designed to meet the short circuit rating of 2.14kA per phase for 1 second and not all 3 cores combined
23	Vol. II : Section 6.3 – Specification of Equipment and Construction Material : C2: 11 kV XLPE POWER CABLE :		Please confirm the requirement of Inner Sheath, since the same is not mentioned in the referred specification. However for armoured cable it is recommended to have inner sheath. In case inner sheath to be provided, request you to confirm the material, type of inner sheath. Further the thickness of inner sheath shall be as per relevant IEC.	Inner sheath to be provided as per IEC 60502
24	Vol. II : Section 6.3 – Specification of Equipment and Construction Material : C2: 11 kV XLPE POWER CABLE Clause No. 1.16	The armour of cables shall consist of aluminum wires or strips. The armoring shall be applied such that the minimum area of coverage shall be 90% and the gap between any two armour strips/ wire shall not be more than the width of strip/ diameter of armour.	Please confirm whether the armor will be of galvanized steel strips or aluminum wires or strips	Galvanized steel flat wire/steel round wire shall be used for armour in line with IEC. Al. flat wire shall be used for armour of single core LT cable
25	Vol. II : Section 6.3 – Specification of Equipment and Construction Material : C3: LT XLPE POWER CABLE Clause No. 9	The armour of cables shall consist of either galvanized round steel wires or galvanized steel strips & in case of Single core cable, armoring shall be of Non-magnetic material	For 3.5 core cable, we understand that Galvanized steel Flat strip armour shall be required. Please confirm. For single core, aluminum wires or strips shall be required for armour. Please confirm.	Galvanized steel flat wire/steel round wire shall be used for armour in line with IEC. Al. flat wire shall be used for armour of single core LT cable
26	Vol. II : Section 6.3 – Specification of Equipment and Construction Material : C3: LAYING AND INSTALLATION of HT and LT Cable : Clause No. 29.1	<ul style="list-style-type: none"> <li>viii) A.C long duration breakdown voltage</li> <li>(x) Impulse break-down voltage</li> <li>(xi) Over-sheath - oil-proof</li> <li>(xvi) Over-sheath - non-inflammability</li> <li>(xvii) Over-sheath - thermal deformation</li> <li>(xvii) Over-sheath - hardness</li> </ul>	<ul style="list-style-type: none"> <li>viii) A.C long duration breakdown voltage - Not Applicable as per IEC 60502-2</li> <li>(x) Impulse break-down voltage - Not Applicable as per IEC 60502-2</li> <li>(xi) Over-sheath - oil-proof - Not Applicable as per IEC 60502-2</li> <li>(xvi) Over-sheath - non-inflammability - Not Applicable as per IEC 60502-2</li> <li>(xvii) Over-sheath - thermal deformation - This test is not mentioned in IEC 60502-2, please clarify.</li> <li>(xvii) Over-sheath - hardness - As per IEC 60502-2, Determination of hardness is applicable for HEPR insulation not XLPE insulation and PVC sheaths. Please confirm.</li> </ul>	Relevant test as per IEC 60502-2 shall be applicable.
27	Section 6.3 – Specification of Equipment and Construction Material : C2: LT XLPE POWER CABLE : Clause No. 2	ASTM G-53/ DIN 56687 - UV Testing for XLPE insulation	UV Testing shall only be applicable for Outer sheath (which only gets exposed, to direct Sun light throughout cables life span) as per ASTM G 154. Hence testing shall not be applicable for insulation. Please confirm	Confirmed, UV testing not required for XLPE insulation.
28	Section 6.3 – Specification of Equipment and Construction Material : D2: LV AERIAL BUNDLED CONDUCTOR (ABC)	This Specification covers the design, manufacture, factory test and supply of 0.6/1 kV cross-linked polyethylene (XLPE) insulated with insulated neutral messenger conductor supporting aerial bundled conductors (ABC) for use in the construction of 400/230V, 3-phase, 1-neutral, 1-steel lighting, distribution systems.	Thickness shall be as per relevant IEC or equivalent standard. Please confirm.	Confirmed
29	Section 6.3 – Specification of Equipment and Construction Material : D2: LV AERIAL BUNDLED CONDUCTOR	Standard	Kindly clarify whether the IEC or NFC standard to be followed for LV AB cable	IEC to be followed
30	Section 6.3 – Specification of Equipment and Construction Material : D4: FITTINGS FOR LV AERIAL BUNDLED	Messenger wire	Kindly specify the material (GI or AL) and size for holding the messenger wire.	Aluminum alloy material shall be used for fabrication of messenger wire holder.





Contract No. : PMD/PTDSSP/PBDSRP-077/78-01

Clarification No. 4

*[Signature]*

S.No.	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
8	Vol -III - Bid Price Schedule	BOQ Schedule I - Part A, H (iv) TEST EQUIPMENT	Request you to please provide detailed specification Please provide the dynamic range of OTDR	Technical Specification of Test Equipment is attached at Appendix-I
9	Vol -III - Bid Price Schedule	BOQ Schedule I - Part B, 1.3 Earthing	Request you to please provide the detailed requirement of the earthing system required by NEA, i.e. which type and how many nos of earthing required for DTR, RMU etc.	Feeder pillar and RMU shall be having minimum 2 earthings. DTR shall have 3 earthings including LA. Service pillar shall have minimum 1 earthing. Size of earthing shall be as per system requirement.
10	Vol -III - Bid Price Schedule	BOQ Schedule I - Part B, 1.3 1.3.1 Rod Earthing along with PVC insulated wire with cable lugs 1.3.3 Cable earthing	Please provide detailed specification of the mentioned items	To be finalized during detailed engineerin in line with system requirement.
11	Vol -I Terms and Procedures of Payment	Five percent (5%) of the total or pro rata CIP or amount upon successful completion of SLA (Service Level Agreement)	Please confirm the total SLA period is 3 years i.e. 2 years (DLP Period for critical components)+1 year	SLA is for 3 years for entire system. DLP period is 3 years for XLPE cables, Distribution Transformers, Communication equipment, XLPE Covered AAA Conductor, AB Cables and RMU Units. LC will be set up by the Employer in favour of the Contractor for the base rate amount of Schedule-1 (Plant and Equipment including Mandatory Spares to be supplied from abroad) of the BPS. If the adjusted price will be higher than the base price then the additional amount will be paid through WITHDRAWAL APPLICATION and if adjusted price will be lower than the base price then the differential amount will be deducted from next consecutive interim bill of the Contractor.
12	Appendix I - Terms and Procedures of Payment	Terms and Procedures of Payment	Kindly confirm the Terms and Procedures of Payment for the Price adjustment component payable on 11KV & LT XLPE Cables	Refer Bid Price Schedule 4, Part A Employer Assessed Quantities, A. Poles S.N. 6.0 and D. Distribution Transformer, S.N.1
13	Project Specific Requirement, 1.1.3 Scope Activities, Note a)	Contractor may have to relocate the existing distribution transformers to the new transformer structures	Kindly quantify the referred scope as part of the bid price schedule	Type test report shall be submitted in line with the bid requirement.
14	Section 3 - Evaluation and Qualification Criteria - 2.5 Subcontractors	Must submit the type test report carried out from IEC or STL accredited independent testing laboratory	Request you to kindly accept type test certificates from NABL accredited labs or that from ERDA of India for cables, RMU including FRUTU & Distribution transformer	
15	General	General	In case of discrepancies between Technical specification, drawings and Bid Price schedule, Bid price schedule shall be considered as final. Please confirm	Confirmed
16	General	Architecture	Please provide Typical Architecture indicating the Integration of New Sub systems with existing Communication System based on SDH network of the Customer.	It will be finalized during detail engineering
17	Section 6.3 - Specification of Equipment and Construction Material Section 1-2 - Clause 2.1	The equipment supplied shall support existing network for Power system operational requirements	Please provide communication architecture drawing of existing network.	Existing communication architecture from Pokhara and Bharapour Substation to LDC, Kalmahandu is attached in Appendix-II.
18	Section 6.3 - Specification of Equipment and Construction Material Section 1-2 : Network Configuration and Equipment Characteristics - Clause 2.2.3.1	The Contractor shall synchronize the existing equipment and all the new equipment under the contract using existing Master clock, if available. The Contractor shall provide the additional clocks as required under the set of clocks indicated in BPS. In addition to GPS input reference, the synchronization clock must have provision to take INPUT reference coming from another clock.	For the referred clause, we do not envisage supply of additional clocks since the same is not covered in BPS. Also referring to the Specification Clause, we understands that the GPS Master Clock (NTP Server) with GPS Antenna is existing in the Distribution Control Centre (DCC). Accordingly, Bidder assumes that the additional Clocks mentioned in the Specification is Digital Slave Clocks which shall sync with the GPS Master Clock based upon receipt of the Pulse input. Bidder also wants to understand whether, Layer-2 Network Switch indicated as part of the SDH Equipment shall sync with the GPS Master Clock	No such clause is not mentioned in the bid document.
19	Section 6.3 - Specification of Equipment and Construction Material - C2 LT XLPE POWER CABLE	CI 9 The armour of cables shall consist of either galvanized round steel wires or galvanized steel strips.	Kindly confirm Armour Material and thickness whether it shall be steel wires or strips	Galvanised steel flat wire/steel round wire shall be used for armour in line with IEC. AL flat wire shall be used for armour of single core LT cable.
20	Vol II : Section 6.3 - Specification of Equipment and Construction Material - C1. 11 KV XLPE POWER CABLE CI No. 1.10	Semiconducting separator tapes may be applied between conductor and the extruded semiconducting XLPE	Please also confirm for 33 KV cables.	Confirmed





Contract No. : PMD/PTDSSP/PBDSRP-071/78-01

Clarification No. -1

*Signature*

S.No	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
31	Bid Price Schedule : Schedule No.1 : Part I : Sr. No. E & Section 6.3 - Specification of Equipment and Construction Material : G LIGHTNING ARRESTER - Clause 1.3.1	9 kV LA & The nominal discharge current shall not be less than 10kA for station class and 5kA for distribution class lightning arrester.	We assume under this project only 5 kA distribution class lightning arresters to be supplied. Please confirm.	Confirmed
32	Section 6.3 - Specification of Equipment and Construction Material : F GANG OPERATED LOAD BREAK SWITCH	Auxiliary Power Supply	Please confirm whether 230 Volts AC auxiliary power supply shall be provided by NEA or an Auxiliary Transformer of suitable VA rating to be provided by the bidder.	AC power shall be extended by the contractor by tapping existing LT line as per clause no 4 of Chapter F. GANG OPERATED LOAD BREAK SWITCH.
33	Section 6.3 - Specification of Equipment and Construction Material : G LIGHTNING ARRESTER - Clause 1.3.2	The active part of the lightning arresters shall be accommodated in porcelain insulators	Kindly confirm whether Polymer type Lightning Arrester is also acceptable. Please confirm.	It shall be of porcelain type as per TS.
34	Section 6.3 - Specification of Equipment and Construction Material : H Ring Main Unit	Enclosure thickness	Enclosure thickness of the RMU shall be as per the manufacturer type test design. Please confirm.	It shall be of as per TS.
35	Section 6.3 - Specification of Equipment and Construction Material : H Ring Main Unit	Mechanical Endurance	As per clause 6.6 in TS, 2000 mechanical operations of breaker are required which is M1 class as per IEC 62271-100, clause no. 3.4.116. Electrical endurance class as per IEC 62271-100, clause no. 3.4.113 is E2. E3 class is applicable for Load break switch as per IEC 62271-103, not for VCB as per IEC 62271-100. Please confirm.	2000 mechanical operations of Circuit Breaker is confirmed. Electrical endurance class of VCB shall be E2 as per IEC 62271-100
36	Section 6.3 - Specification of Equipment and Construction Material : H Ring Main Unit	Material of Busbar	Busbar shall be made of bare copper. The bus bar are enclosed inside the SF6 insulated sealed SS tank & hence Timed copper busbar is not required.	Bare Copper bus bar enclosed inside SF6 insulated sealed chamber is acceptable. However, bus bar outside the chamber shall be Timed Copper.
37	Section 6.3 - Specification of Equipment and Construction Material : H Ring Main Unit	Mechanical flag	Mechanical flag is only required in those self-powered relays which are dip switch operated and without LCD display, which will help in visual front indication of fault occurrence. The above phenomena are taken care by the LED display available in front relay panel. Hence, Mechanical flag is not applicable for this breaker. Kindly accept the same.	Both LCD/LED display and mechanical flag are acceptable.
38	Section 6.3 - Specification of Equipment and Construction Material : H RING MAIN UNIT (RMU) - Clause 5.2	The unit shall also have space to house SDH equipment (for communication) and FMS (fiber management system). The typical space requirement for SDH equipment shall be 1U and for FMS shall be in different sizes like 1U, 2U, 3U, 4U for different RMUs. Requirement of FMS size shall be finalized during detailed engineering as per site requirement. However SDH size will remain same for all the RMU panels. Typical of dimension of 1U, 2U, 3U & 4U are given as annexure-1 for reference.	We understand that RMU shall have space to mount 1 No. Managed/Unmanaged switch, patch cords and 48 port LIU in the metering cubicle. Apart from above, any other equipment won't be feasible to accommodate. Please confirm whether the SDH and FMS equipment can be accommodated outside the RMU	FRTU shall have the provision to accommodate FMS and 1 Rack Unit (RU) MPLS-TP equipment.
39	Section 6.3 - Specification of Equipment and Construction Material : H RING MAIN UNIT (RMU) - Clause 5.2	For outdoor RMUs a weather proofing process shall be carried out. Sheet metal must be galvanized / thermally sprayed and polyurethane painted with about 70 micron thicknesses, to achieve outdoor worthiness and corrosion proofness.	The fabricated parts are pre-treated using 7 tank process. The Parts are then painted using polyester power coating paint with appropriate thickness of 60-80 microns. This coating is suitable for corrosivity class of C1-C2 for outdoor application which is suitable for the environmental condition of Nepal. please confirm whether this weather proofing process is suitable or not.	Provisions mentioned in TS to be followed.
40	Section 6.3 - Specification of Equipment and Construction Material : H RING MAIN UNIT (RMU) - Clause 6.7	It is preferable to have bushings accessible from the rear side of RMU	All RMUs are accessed from front only as per requirement. Please confirm whether this arrangement is acceptable or not.	Shall be finalized during detailed engineering.
41	Section 6.3 - Specification of Equipment and Construction Material : H RING MAIN UNIT (RMU) - Clause 6.11	The fault shall be displayed / indicated by means of LCD / LED which can be reset with manual / auto with selectable time/ on restoration of supply. Local fault indications - LED / LCD display on FPI front panel along with LED indication on front panel of RMU enclosure	The fault shall be indicated by means of LED which can be reset with manual / auto with selectable time/ on restoration of supply. FPI shall have LED Indication. Please confirm for the same.	Provisions mentioned in TS to be followed.





*[Signature]*

S.No.	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
42	Section 6.3 – Specification of Equipment and Construction & Material : H. RING MAIN UNIT (RMU) - Clause 6.15.1.1 & 6.15.2	The Dim Rail should have space to mount the MFM's provided by SIA Multifunction meter (MFM) to be provided along with RMU which should have the provision of mapping all the signals with RS485	MFM shall be provided by NEA. Space of 96 x 96 sq. mm shall be provided in RMU to mount the MFM.	MFM to be provided alongwith RMU as per TS clause 6.15.2
43	Section 6.3 – Specification of Equipment and Construction & Material : H. RING MAIN UNIT (RMU) - Clause 6.15.1	The CT/PT should provide metering grade core for connecting MFM (Multi function Meter) provided with FRTU.	Metering CTs are provided in each Breaker Module. Metering CTs are not provided in LBS. Metering Bus PT shall be provided. Metering CTs are Low Burden CTs having VA burden of 2.5VA and shall be mounted inside cable chamber of breaker module. Please confirm.	CT shall be provided with each breaker module. Moreover, calculation for the burden of the CT shall be provided during detail engineering.
44	Section 6.3 – Specification of Equipment and Construction & Material : I. LT Panel - Clause 5.2	NO/NC contacts for ACB	As per clause 5.2 in TS, control terminal shall be provided with 25 NO/NC contacts. We propose 4 NO+NC contacts in which one(1NO + 1NC) contact will be used for interlocking and 3 will remain as spare. Please confirm.	4 NO + 4 NC contacts are acceptable
45	Section 6.3 – Specification of Equipment and Construction & Material : I. LT Panel - Clause 5.3.5	Current density should not be more than 1A/mm <sup>2</sup> for Service pillar.	We assume that the current density should not be more than 1A/Sq.mm. for Distribution Feeder Pillars also. Please confirm.	Max allowed current density is specified for service pillar. Further it has to be designed as per the requirement specified in the bid document including the service condition.
46	Section 6.3 – Specification of Equipment and Construction & Material : J. Fibre optic cable and PLB duct. Section: 01 - Clause 1.1.3	Attenuation Coefficient: @ 1310 nm <= 0.34 dB/km @ 1550 nm <= 0.21 dB/km	Please clarify whether attenuation value to be achieved in fiber stage or in cable stage	Please refer Technical Specification Table 1 of DWSM Optical Fibre Characteristics
47	Section 6.3 – Specification of Equipment and Construction & Material : J. Fibre optic cable and PLB duct. Section: 02 - Clause 2.1.6 & clause 2.3	The Self Supporting Metal Free ADSS Optical Fibre cable shall be designed and manufactured supplied under this contract as per TEC GR TEC/GR/XOFC-022/02/MAR-17 Type III-A	As per 2.1.6, functional requirements, it is given as cable required is Type IIIA but in clause 2.3 technical construction it is given as Type III B. Please clarify whether Type IIIA or Type III B is required	At the time of survey Type IIIA and IIIB Cable can be decided
48	Section 6.3 – Specification of Equipment and Construction & Material : L. FIBER OPTIC BASE COMMUNICATION EQUIPMENT	The Contractor shall make ready all the equipment like RMU DTs, FPI and GO switch to connect with the new distribution centre without any problems, like data acquisition from distribution field level (unril Distribution Transformers) till monitoring and controlling of the overall electrical distribution network, including Ring Main Units (RMUs), GO Switches, Distribution Transformers and FPIs (Fault passage Indicators) within the network.	We assume the design and construction of Data control centre or New distribution centres are not in the scope of this tender. For Integration with Existing NEA Network, our scope shall be limited to laying of Fibre optic cable up to the FO termination point of customer (NEA) scope. Please confirm	Design and construction of Data Control Centre or new distribution centres are not in the scope of this tender. Bidder's scope shall be laying of Fibre optic cable, Installation of FODP, Installation and Commissioning of Communication Equipment and Integration with existing Customer Equipment up to the Reporting Station. Moreover, coordination shall be done with DCC to ensure that necessary data reaches up to DCC.
49	Chapter 6.1 – Project Specific Requirement (PSR) ANNEXURE- IV - Clause 1.3	1.3 SIM Card Section	We assume that SIM card shall be supplied by NEA. If it is to be supplied by the Bidder, clarify the type of SIM, subscription charges for no. of years	SIM Card will be supplied by NEA
50	Chapter 6.1 – Project Specific Requirement (PSR) ANNEXURE- IV - Clause 1.3	1.3 SIM Card Section	We are not envisaging any routers or signal boosters in our scope of supply as the same is not covered in Price Schedule.	Please refer Vol-II, Chapter-1, PSR, Annexure-IV, Section 1.3 SIM Card of the Bidding Document.
51	Section 6.3 – Specification of Equipment and Construction & Material : L. Network Configuration and Equipment Characteristics - Clause 2.5 Section 6.3 – Specification of Equipment and Construction & Material : APPENDIX – A - A.2	This TMN shall provide the capability to monitor, reconfigure and control elements of the telecommunications network from a centralized location and at each node of the network where equipment is located. & Further the spare fibres of installed UGFO cable are proposed to be used for telecom services in future and is not part of the scope of this specification.	The referred clauses are contradicting. Please clarify the elements of the telecommunication network that need to be monitored, reconfigure and controlled under the scope of this tender.	All the Communication Equipment Supplied in bidding documents will be monitored.





Contract No. : PMD/PTDSSP/PBDSNP-07/178-01

Clarification No. 1

*Handwritten signature*

S.No.	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
52	Section 6.3 - Specification of Equipment and Construction Material : O VEHICLE MOUNTED SINGLE PHASE MODULAR CABLE FAULT LOCATING EQUIPMENT SUITABLE FOR LOCATING FAULT ON LOW /MEDIUM / HIGH VOLTAGE POWER CABLES UP TO 33 kV - CI 4.1	The single phase measuring set up shall be provided with 50 mtr of HT cables, LT main cable, earthing cable, and RF cable.	(i) Please provide the cable sizes of HT cable, LT main cable, earthing cable and RF cable to be used in the cable fault location vehicle and addition to that please provide the specification related to this items. (ii) Please ensure that the length of the measuring cable from the fault location vehicle shall be as per the manufacturer's design.	Shall be finalized during detailed engineering
53	Section 6.1: Project Specific Requirement - CI 5.3	The fault level of all equipment to be supplied under present scope shall be as indicated below Voltage Level - 11kV Fault Level - 25kA for 3 Sec	As per specification of Individual Equipment i.e. for RMU's, Section 6.3 - Specification of Equipment and Construction Material SI No. H - "Rated short time current shall be 20kA for 3 second". We understand it shall be as per individual specification of RMU's only i.e. 20kA for 3 Sec; Kindly confirm. Short circuit current for the feeder pillar shall be maximum 40kA for 1 sec. Please confirm.	Bidder understanding is in order
54	General	Short circuit		Bidder understanding is in order
55	General	Service Pillar	Please provide the specification for service pillar.	TS for LT panel mentioned at SI No. 1 (LT Panel) of Chapter - 6.3 is applicable for service Pillar as well.
56	General	Conductor	Please include the line item of ACSR panther conductor used for the connection between DTR and DO fuse. Please confirm that any change in quantity of line items during detail engineering shall be paid at actuals.	It is included in the Schedule-I, Part-B; Contractor assessed quantities S.N 1.1, "Busbar materials,....."
57		Bid Price Schedule	As per the referred line item in the BPS, only 25 sets (1 set=3 nos) of 9kV LA is indicated. But the quantities of 3 phase DTR is indicated as a total of 75 nos. (300kVA - 50nos and 200kVA - 25nos.) Please clarify.	Quantity variation for BoQ items (other than Lot/LS) shall only be considered as per actual
58	Bid Price Schedule : Schedule No. I : Part A : Sr. No. E	9 kV LA quantity		Lightning Arrestor mentioned in the BPS item No. E is for cable termination on the overhead structures. It is not for the distribution transformers. For the distribution transformer, in-built LA shall be provided
59	Bid Price Schedule : Schedule No. I : Part A : Sr. No. M	Service Cables	Kindly include the line item for conduit used for the service cable	Provisions mentioned in TS to be followed.
60	Bid Price Schedule : Schedule No. I : Part A : Sr. No. M	Service Cables along with all accessories required for connection of meter to service pillar 1.1 (single phase 16 A) 1.2 (single phase 30 A) 1.3 (single phase 60 A) 1.4 (3 phase phase upto 25 kVA) 1.5 (3 phase phase 25 to 50 kVA)	Quantity for the referred items is Consumers - In view of length of the Service cable been variable for every consumer, you are requested to incorporate the Quantity of Service Cable in Mtrs	No changes in BOQ will be made on this regard. Bidders to make their own assessment for the same.
61	Bid Price Schedule : Schedule No. 4 : Part A : Sr. No. M	Service Cables along with all accessories required for connection of meter to service pillar 1.1 (single phase 16 A) 1.2 (single phase 30 A) 1.3 (single phase 60 A) 1.4 (3 phase phase upto 25 kVA) 1.5 (3 phase phase 25 to 50 kVA)	Kindly clarify the scope for installation of Service cables, Method of laying & Meter connection. We do not envisage any scope of meter connection / termination at consumer end, as the meter / meter box likely will be sealed, we understand the scope limits only upto laying of Service Cable upto Meter Box. Kindly Confirm.	Service cable laying, connection with the service pillar and to the energy meter terminals is in the scope of the Contractor. However, NEA authorized personnel shall extend necessary assistance to the Contractor for opening and re-fixing the seals of energy meters.
62	Bid Price Schedule : Schedule No. I : Part A : Sr. No. G	LT Feeder Pillar including MS Galvanized Steel Supporting Base Structure	As per the specified line item in BPS, the rated supply voltage for the LT panel is 415V. But as per the LT panel specification clause 1.1, the rated supply voltage is specified as 400V. Please clarify.	Please provide as per Bid Price Schedule (BPS).
63	Bid Price Schedule : Schedule No. I : Part A : Sr. No. I	Telecom equipments	Kindly confirm the location of mounting. Telecom equipments including network management system.	MPLS-TP Hybrid equipment is supposed to be installed at substations (Pokhara and Bharanpur). MPLS-TP equipment shall be installed at FRTU of RMU and NMS shall be installed at DCC and/or Substations (Pokhara/Bharanpur) as finalized during detail engineering.
64	Bid Price Schedule : Schedule No. I : Part A : Sr. No. I-4	Hardware	For referred line item, request to clarify the requirement of PC/Laptop. If required, kindly confirm the quantity and specification.	The hardware quantity is detailed in Bid Price Schedule (BPS) and the detail specification is attached in Vol-II (Part-B). L. Fiber Optic Based Communication Equipment, Section 1-2 Network Configuration and Equipment Characteristics, Sub-Clause 2.11.1 Server, Workstation and Craft Terminal





Contract No. : PMD/PTDSSP/PMDSRP-07/77/8-01

Clarification No.-1

S.No.	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
65	Bid Price Schedule : Schedule No.4 : Part A : Sr. No. A	Item No. 1 - 11m Steel Tubular Pole Item No. 2 - 9m Steel Tubular Pole	Kindly confirm if any foundation required for Steel Tubular poles or shall it be as per given construction drawing CSQ - 05. In case of concrete foundation kindly provide the relevant drawing & specifications. As per item G, LT feeder pillar to be provided and their standard types are listed as ABC, D1, D2, D3 & E. Kindly provide the standard drawings for the same if any.	There will be the requirement to do the concreting of foundation and details of the same shall be finalized during detail engineering.
66	Bid Price Schedule : Schedule No.4 : Part A : Sr. No. G	LT Feeder Pillar including MS Galvanized Steel Supporting Base Structure	As per item G, LT feeder pillar to be provided and their standard types are listed as ABC, D1, D2, D3 & E. Kindly provide the standard drawings for the same if any.	Bidder shall design during detail engineering as per the technical specification and site requirement.
67	Bid Price Schedule : Schedule No.4 : Part C : Sr. No. 6	Black topping as per Technical Specification of Road Department and/or Pokhara/Bharatpur Metropolitan City	As per Schedule No.4, Part C, item 6, it is observed that the black topping shall be as per technical specification of road department and/or Pokhara/Bharatpur Municipality. Kindly provide technical specification or standard drawing for the same.	The norms of road department can be obtained from the following link: <a href="https://dot.gov.np/home/publication/standard-specification-of-roads-and-bridges/standard-specifications-for-road-and-bridge-works-2-73">https://dot.gov.np/home/publication/standard-specification-of-roads-and-bridges/standard-specifications-for-road-and-bridge-works-2-73</a> . Other details (as applicable) will be provided during detail engineering.
68	Section 6.1 - Project Specific Requirement 2.9 Restoration of Road.	The cost associated with restoration work shall be loaded in the respective bill of quantity (BOQ) items of the bid price schedule.	We understand the BOQ item against the road restoration works, is item 6 under Schedule No.4, Part C, i.e. Black topping as per Technical Specification of Road Department and/or Pokhara/Bharatpur Municipality. As per the Project Specific Requirement and the site conditions the top layer to be restored can also be hexagonal blocks, bricks, stones, kerb-stones etc. We presume all sort of restoration shall be measured and paid against this item SI No.6 or else kindly incorporate additional restoration item for such roads.	Shall be executed as per Sub-Clause 2.9.1 and 2.9.2 of PSR
69	Section 6.1 - Project Specific Requirement 2.9 Restoration of Road.	The cost associated with restoration work shall be loaded in the respective bill of quantity (BOQ) items of the bid price schedule.	As per our understanding we expect concrete roads also in certain areas. We understand reinstatement of concrete roads shall be payable against respective items of Civil Works SI No. 1 to 6.	Shall be executed as per Sub-Clause 2.9.1 and 2.9.2 of PSR
70	Bid Price Schedule : Schedule No.4 : Part C : Sr. No. 10	Geotechnical / Soil Investigation as per technical specification	As per Schedule No.4 (For Pokhara & Bharatpur), Part C, item 10, it is observed that geo-technical/soil investigation as per technical specification listed with 30 Nos. Kindly confirm whether those quantities are covered up for the complete project locations.	Confirmed
71	Bid Price Schedule : Schedule No.4 : Part C : Sr. No. 16	First class local chimney made Flat Brick Soling with sand in foundation and in trench wherever necessary laid in line & level including filling in the joints with sand all complete.	It is observed that first class local chimney made flat brick soling with sand in foundation and in trench wherever necessary to be laid. Kindly provide the minimum thickness to be provided.	One layer of flat first class brick soling with filler material (sand) shall be provided.
72	Section 3 - Evaluation and Qualification Criteria - 2.5 Subcontractors	(i) Must have successfully completed the supply of 400 -1100 Volt XLPE, 3.5 Core cable of respective sizes (300 and 185 sq mm)	Request you to kindly consider the qualification of vendors for XLPE cable (400-1100V) also against the successful supplies of HT XLPE cable of minimum size 300 sq. mm atleast twice the bid quantity and half the bid quantity as satisfactory operation.	No changes in EQC will be made in this regard.
73	Chapter 6.1 - Project Specific Requirement (PSR) ANNEXURE- IV - Clause 4.3	Multifunction meter shall be compatible for integration with the smart meter server and/or DCC with the help of GPRS or Radio modem or with the help of FRITU and SDH Equipment over the optical fiber channel. Interface equipment (as applicable) and necessary software shall be supplied by the contractor at no extra cost.	Confirm the requirement of interface equipment i.e. whether GPRS or Radio Modem is required or via FRITU and SDH / MPLS Equipment over Fiber channel is required. Further to this we understand that any Software required for integration of Data and Control Signal from the field MFN, JEDs FRITU with the existing SCADA system is not part of our scope. Bidder's scope is limited to complete Hardware Integration only.	MFN data shall be transferred to DCC with the help of GPRS modem and/or through optical fiber link (if available). Bidder's scope shall be supply and installation of equipment including related software for integration with existing infrastructure up to DCC via Reporting Station. Moreover, coordination shall be done with DCC to ensure that necessary data reaches up to DCC.
74	Bid Price Schedule : Schedule No.1 (Bharatpur & Pokhara) Part B : Sr. No. 1.3	Earthing 1.3.1 - Rod Earthing along with PVC Insulated wire with Lugs 1.3.2 - Earthing with GI Flat Strip 25X6 mm 1.3.3 - Cable Earthing	Request you to kindly provide specification for the Earthing activities as mentioned in the said Bid Price Schedule item	To be finalized during detailed engineering in line with system requirement

*[Signature]*





Contract No. : PMD/PTDSSP/PMO&NP-077/18-01

Clarification No.-1

*[Signature]*

S.No.	Reference to Tender Clause	Description	Bidder's Queries	Employer's Response
75	Volume-2, Section 6.3 – Specification of Equipment and Construction Material, Clause 5.2	The unit shall also have space to house SDH equipment (for communication) and FMS (Fiber management System). The typical space requirement for SDH equipment shall be 1U and for FMS shall be in different sizes like 1U, 2U, 3U, 4U for different RMUs. Requirement of FMS size shall be finalized during detailed engineering as per site requirement. However SDH size will remain same for all the RMU panels. Typical of dimension of 1U, 2U, 3U & 4U are given as annexure-1 for reference.	We understand from the BOQ that there is no requirement of SDH equipment at RMU and instead there will be MPLS equipment. Request you to kindly amend / clarify the said requirement under RMU specification.	There is no requirement of SDH communication equipment as per BPS. MPLS communication equipment and FMS (Fiber Management System) of different rack units shall be housed inside FRTU. Moreover, AH capacity of battery shall be sufficient for MPLS communication equipment instead of SDH equipment.



## Appendix-I

### Test Equipment

BOQ provides mandatory test equipment requirements, to be provided. The parameters / features of the mandatory equipments are enumerated in Table-1 below:

Table-1		
S. No.	Test equipment	Parameter
A.	Test Equipments for OPGW cable	
1	OTDR (Optical Time Domain Reflectometer) for 1310/1550 nm with laser source.	Equivalent to Anritsu MW9076B1 or better.
2	Optical Attenuators (variable 1310/1550nm).	Equivalent to JDSU OLA55 or better.
3	Optical Power meter (1310/1550nm) incl laser source	Equivalent to JDSU OLP55 or better
4	Laser Light Source (1310/1550nm)	Equivalent to EXFO FLS300-23BL or better.
5	Optical Fibre Fusion Splicer incl. Fibre cleaver	Equivalent to Sumitomo T-39-SE or better.
6	Splice kit	FIS – FI-0053-FF or equivalent
7	Optical test accessory kit including all necessary connectors, adaptors, cables, terminations and other items required for testing	FIS – FI-0053-TS-ST or equivalent

In case the offered make/model of test equipment has multiple options for the parameters, the option of higher range shall be acceptable. The supplied test equipment shall be suitable for use in the high EMI/EMC environment. The Contractor shall submit performance certificate for offered test equipment from at least one customer. The Contractor shall offer only reputed make test equipment such as Acterna (JDSU)/Anritsu/Sumitomo/Agilent/EXFO etc.

The Contractor shall provide in their bid, additionally recommended test equipment list necessary to support specified system outage requirements. These lists shall include all relevant technical descriptions and recommended minimum quantities based upon the guidelines consistent with the telecommunications resource management hierarchy and continuing maintenance concept. The recommended test equipment shall not be considered for evaluation and may be included in the final scope of supply.

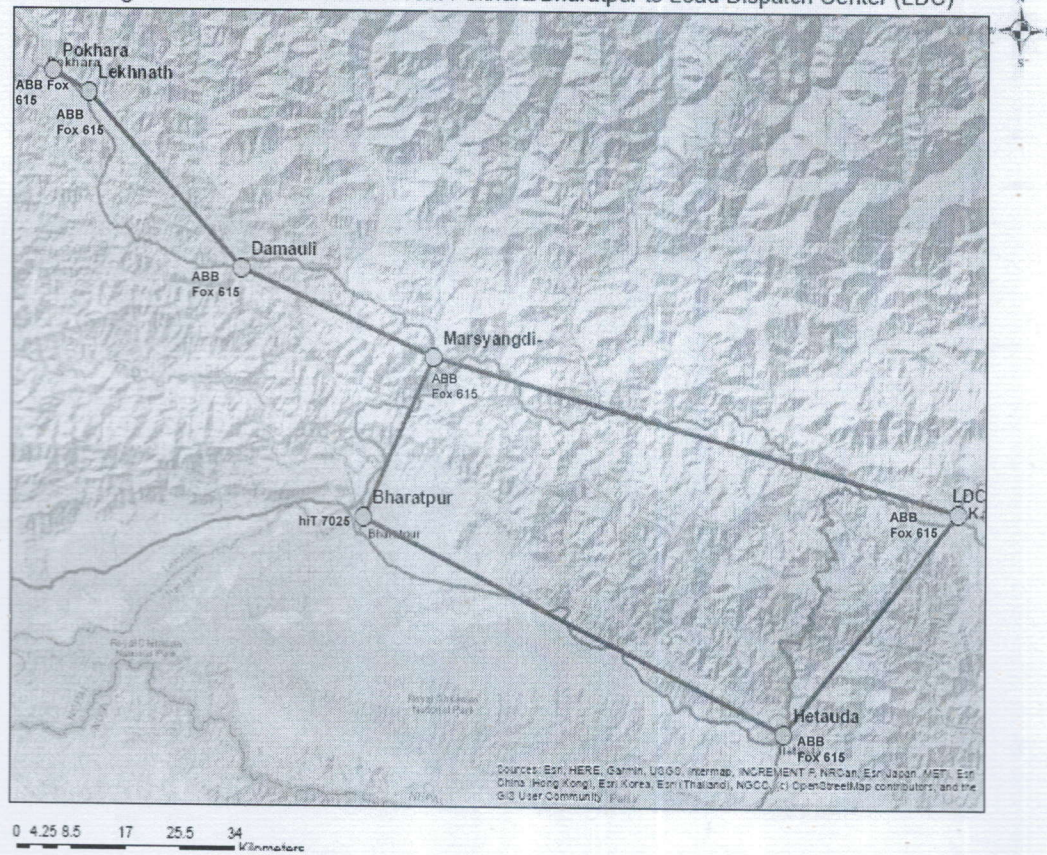


*Branch*



## Appendix - II

Existing Communication Network From Pokhara/Bharatpur to Load Dispatch Center (LDC)



*Handwritten signature*