



CLARIFICATION #7

FOR

PROCUREMENT OF PLANT DESIGN, SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF LOT 1: 400 kV RATMATE SUBSTATION AND WORKS AT LAPSIPHEDI AND NEW HETAUDA SUBSTATIONS, LOT 2: 400 kV NEW BUTWAL SUBSTATION, LOT 3: 400 kV NEW DAMAULI SUBSTATION

Ref No: MCA-N/ETP/CB/004

Issued on: 05 September 2023

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
1.	LOT 1- Section V, B1.2, CHAPTER 12: TELECOMMUNICATIONS SPECIFICATION, Clause 10 & GT Clause 10.3 & 1.3: -	Please confirm requirement of Type tests for Telecom is 10 years or 5 Years as both technical specifications, PSR & GTR requirement are conflicting.	Please refer to previous clarifications and Addendum-2 in which response to your request for clarifications was provided by MCA-Nepal.
2.	Electrical New Ratmate Substation, 221123_Lot1_Rat_PS_Option, 2.6 400kV Gas Insulated Switchgear	Please check the following points & revise the BPS to quote accordingly, i) In clause 2.6.2.4, for 400/220kV transformer bays, quantity of Maintenance earth switch is mentioned as 4 nos, which shall be 8 nos. as per requirement. ii) In clause 2.6.2.15, for 400/220kV transformer bays, quantity of three single phase Gas insulated bus and required GIS termination bushing... is mentioned as 4 bays which shall be 3 bays as per requirement.	Please refer to previous clarifications (refer clarification 1, 2 and 3) in which response to your request for clarifications was provided by MCA-Nepal. Further, MCA-Nepal intends to issue an addendum to the bidding document modifying Price Schedule subject to the approval of the authority.
3.	Electrical New Butwal Substation 221123_Lot2_NBW_PS_Option, 2.6 400kV Gas Insulated Switchgear	Please check the following points & revise the BPS accordingly: i) In clause 2.6.1.5, quantity of Line/feeder High speed earth switch is mentioned as 20	Please refer to previous clarifications (refer clarification 1, 2 and 3) in which response to your request for clarifications was provided by MCA-Nepal.

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		<p>nos which shall be 10 nos. as per requirement.</p> <p>ii) In clause 2.6.1.6, quantity of Voltage transformer is mentioned as 20 nos which shall be 10 nos as per requirement.</p> <p>iii) In clause 2.6.2.6, quantity of Voltage transformer is mentioned as 2 nos, which shall be 4 nos. as per requirement.</p>	<p>Further, MCA-Nepal intends to issue an addendum to the bidding document modifying Price Schedule subject to the approval of the authority.</p>
4.	<p>Electrical New Damauli Substation 221031_Lot3_NDM_PS_Base, 2.6 400kV Gas Insulated Switchgear, 2.6.3</p>	<p>In referred clause, the quantity of Breaker, CT, ISO, ES, LCC & PD monitoring are mentioned only for 2 tie bays. However, as per SLD (NBW- 100-1 & NBW-100-2), and PSR clause 2.1.1, three (3) tie bays are under present scope. Please check & revise the BPS to quote accordingly.</p>	<p>Please refer to previous clarifications in which response to your request for clarifications was provided by MCA-Nepal.</p> <p>Further, MCA-Nepal intends to issue an addendum to the bidding document subject to the approval of the authority.</p>
5.	<p>Electrical New Ratmate Substation, 221123_Lot1_RAT_PSR, 3.16 VISUAL MONITORING SYSTEM New Butwal Substation, 221123_Lot2_NBW_PSR, 3.16 VISUAL MONITORING SYSTEM New Damauli Substation, 221123_Lot3_NDM_PSR, 3.15 VISUAL MONITORING SYSTEM</p>	<p>The requirement of Visual monitoring system is defined in the referred clauses. However, the line item for the same is not included in respective BPS. Please confirm the requirement of VMS and revise the BPS to quote accordingly.</p>	<p>MCA-Nepal intends issue an addendum to the bidding document on this respect, subject to the approval of the authority.</p>
6.	<p>Electrical New Butwal Substation, 221123_Lot2_NBW_PSR, 3.20 LIMIT SCOPE OF SUPPLY AND INTERFACES, Sl.No.2</p>	<p>As per referred clause, it is mentioned, “Any automation or auxiliary component required to connect the two Auto bays with the existing system shall be included in the scope.” Based on above point, we</p>	<p>MCA-Nepal may issue an addendum to the bidding document on this respect, subject to the approval of the authority.</p>

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		<p>understand that, proposed 2nos of 220kV ICT bays shall be connected with the existing 220kV SAS system.</p> <p>Please confirm. And include separate line item in BPS for integration/connection of proposed 2nos of 220kV ICT bays with existing 220kV SAS system.</p>	
7.	<p>Electrical New Ratmate Substation, 220913_Lot1_RAT_TS, Chapter- 2, Section 4, clause 2.1, d. New Butwal Substation, 220913_Lot2_NBW_TS, Chapter- 2, Section 4, clause 2.1, d. New Damauli Substation, 220913_Lot3_NDM_TS, Chapter- 2, Section 4, clause 2.1, d</p>	<p>Discharge class of 420kV LA is mentioned as class 4 in referred clause. However, the same is mentioned as class 3 as per technical data sheet.</p> <p>Please check & confirm the actual requirement.</p>	<p>MCA-Nepal has already issued an addendum to the bidding document clarifying the issue. The Bidders are requested to refer Addendum #06 for your clarification.</p>
8.	<p>General</p>	<p>There is no separate line item for Indoor lighting in BPS for all three new Substations. Please add a separate line item for Indoor lighting works.</p>	<p>MCA-Nepal intends to issue an addendum to the bidding document on this respect, subject to the approval of the authority.</p>
9.	<p>Site Queries</p>	<p>New Butwal Substation Site: Bidder request to amend the price Schedule for Removal of Gravel & PCC of 220kV existing Yard.</p>	<p>It is deemed to be included in item no: 4.3.3.3 and 4.3.3.4. Bidders are requested to submit the Bid accordingly.</p>
10.	<p>For All Lots-Base and Option Other necessary works as per Employer's Requirement and Conditions of Contract, if any, not included above (specify).</p>	<p>Majority of items is Quantified in the Price Schedule except Lot items. BASE and OPTION Prices to be quoted as per Price Schedule. For many Line items "Other necessary works as per Employer's Requirement and Conditions of Contract, if any, not included above (specify)" is mentioned at multiple locations in each Price</p>	<p>MCA-Nepal intends to exercise the option scope of works (i.e., only one scope of work) and remove the provision of base scope of works and addendum to Bidding Document with this may be issued subject to the approval by the authority.</p>

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		<p>Schedule of BASE and OPTION. Bidder request to confirm following: 1)Please clarify the expectation & Scope of MCA Nepal from above mentioned highlighted line items to estimate and quote right price.</p>	
11.	<p>For all Lots- Base+ Option BASE & OPTION - Schedule 4.4.3</p>	<p>Bidder is responsible to provide necessary equipment, tools and Tackles as and when required during the execution period. In general Local the equipment is hired on rental basis by the contractor. Please note Special Tools and Tackles is imported on returnable basis during execution period. Hence Price for Contractor equipment will be indicative only. Please confirm. For Price Schedule 4.4.3 - Line item 4.4.3.29, Each bidder may quote different equipment or any bidder will not quote any price. Please provide equipment name or delete the item.</p>	<p>MCA-Nepal intends to issue an addendum to delete the line item 4.4.3.29, subject to the approval of the authority.</p>
12.	<p>For All Lots-Mandatory Spare Price Schedule & Technical Specification</p>	<p>In Technical Specification of major equipment's, a set of list of Spare mentioned. At the same time list of Mandatory Spare listed in Price Schedule 2. And both are not matching with each other. Bidder request you to confirm Price Schedule 2 is only applicable for Mandatory Spare.</p>	<p>Bidders are advised to refer to previous clarifications in which response to this question was provided.</p>

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13.	Price Schedule Lot1 Base – 220kV GIS 2.7.2.14 Isolating and Earthing switches, 400kV,4000A,50kA single phase and Gas insulated Bus(GIB) for spare transformer, with auxiliary bus, GIS to AIS bushing termination....	Not applicable to 220kV GIS as it is indicated as 400kV. Please confirm	MCA-Nepal intends to issue an addendum to the bidding document on this respect, subject to the approval of the authority.
14.	220913_Lot3_NDM_TS/CHAPTER 1: GIS TECHNICAL SPECIFICATION / Clause no 12.28 / EOT Crane 12.28. ELECTRIC OVERHEAD TRAVELLING CRANE: One EOT Crane each for 400kV GIS hall and 220kV GIS hall of suitable capacity shall be provided for erection & maintenance of the largest GIS component/assembly.	As 220kV GIS is not applicable for New Butwal Sub Station, the bidder understands EOT crane for 220 KV GIS as mentioned in said clause is not applicable. For 400kV GIS, the bidder would like to inform us that EOT Crane capacity of 5T with Single girder, hook height as per GIS OEM recommendation shall be considered, which meets the functional requirement. Kindly accept.	MCA-Nepal intends to issue an addendum to the bidding document to remove EOT crane for 220 kV System for New Butwal and New Damauli Substations, subject to the approval of authority. Please follow the technical specifications for capacity of EOT crane of 400 kV GIS.
15.	220913_Lot1_RAT_TS, 220913_Lot2_NBW_TS, 220913_Lot3_NDM_TS CHAPTER 3: AUTO-TRANSFORMER SPECIFICATION Cl. 6, Table 8	The items specified in the Table 8 is not covered in Prices Schedule. We request to confirm which requirement is to be followed. In case the requirement mentioned in table 8 to be supplied by contractor, Kindly amend the price schedule accordingly.	Bidders are advised to refer to previous clarifications.
16.	MCA Nepal BoQ - GIS ; Ratmate SLDs	The number of components described in the BOQ and the SLD in the tender is different 1.IN the BOQ table of LOT 1, there are 4 main transformer intervals CB for 400KV substations, while the number on the SLD is 3, it is one nos less than BOQ. The number of current transformers, circuit breaker,	MCA-Nepal intends to issue an addendum to the bidding document on this respect, subject to the approval of authority.

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		<p>isolation switch and earthing switch is also different.</p> <p>2.The number of outlet interval circuit breaker maintenance earthing switches for the 200KV substation in the BOQ table of LOT 1 does not correspond to the SLD.</p> <p>3.In the BOQ table of LOT 1, there are 6 CB intervals in the main variable interval BOQ of the 200KV substation; however, there are 5 in the SLD, and the number of component is also not match. Please clarify whether the supply is subject to BOQ or the SLD.</p>	
17.	221031_Lot 2 NBW_PS Base/ 221031_Lot 2 NBW_PS Option BOM 2.1.7 400kV Surge Arrestor	<p>We understand outdoor SA required only for 400kV Outgoing line bays and not for 400kV Transformer bays. Kindly confirm. If required for Transformer Bays, kindly amend the price schedule accordingly.</p>	<p>Item 2.1.7 is for the 400 kV Line bays and SA for Transformers to be included in the 2.1.1.</p>
18.	221031_Lot 2 NBW_PS Base/ 221031_Lot 2 NBW_PS Option Price Schedule, Mandatory Spares for 630kVA Transformer BOM 2.14.3.7 3-Phase 11 kV Horn Gap Fuse	<p>We understand this will be 33kV instead of 11kV. Kindly amend</p>	<p>MCA-Nepal intends to issue an addendum to the bidding document on this respect, subject to the approval of the authority.</p>
19.	Price Schedule Lot 1 Base and Option Price Schedule Lot 2 Base and Option Price Schedule Lot 3 Base and Option	<p>Request you to please provide editable copy for final; Price Schedules</p>	<p>MCA-Nepal has already issued the editable copy to the prospective bidders. Bidders are advised to request the same from the Procurement Agent.</p>
20.	<p>Lot 1 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Pag 4 of 52 Clause 1.1 c), 1.1 d) & 1.1 f) General</p>	<p>Dear MCA team we expect clear and technical replies because prices are quoted on basis of data now and not on basis of engineering stage. We also request MCA to take help of NEA for understanding of network.</p>	<p>MCA-Nepal has provided the clarifications to all the bidders based on the available information with MCA-Nepal. Furthermore, as this is a design build contract, Bidders are advised to quote accordingly.</p>

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	<p>c. This scope of works includes the interfacing and extension of the existing telecommunication systems of</p> <p>i. Lapsiphedi Substation ii. New Hetauda Substation</p> <p>d) The Contractor will be responsible to supply and install interface cards of SDH multiplexer plus phone sets in Lapsiphedi and New Hetauda for remote extensions, interface cards of SDH multiplexer and EPABX at LDC, ECC, New Dhalkebar and New Hetauda.</p> <p>g) New SDH FO communication links, with associated terminal equipment, are required at 400 kV substations in Hetauda, Lapshiphedi and New Damauli to integrate the existing communication network to the new 400 kV substations.</p>	<p>We understand scope of work involves supply of new SDH and Multiplexer equipment at Ratmate GIS S/S and augmentation of existing SDH equipment at Lapsiphedi & New Hetauda. In view of the same, please provide following:</p> <p>a) Make & Model of existing SDH cum Multiplexer equipment at Lapsiphedi & New hetauda</p> <p>b) STM level (STM-1/4/16)</p> <p>c) Slot/optical & Electrical interface cards/ports availability for proposed integration with new SDH at Ratamate GIS S/S in MCA.NEA scope.</p> <p>d) Please confirm modification of configuration in existing SDH Equipments at New Hetauda & Lapsiphedi will be done by Purchaser.</p> <p>e) Please confirm new SDH Equipments can be proposed at New Hetauda & Lapsiphedi in-lieu of integration/interfacing requirement of new proposed SDH equipment at Ratamate S/S with existing SDH equipments</p>	<p>a) Contractor must perform a survey of the existing installation at the design stage and provide compatible material and equipment as reviewed and approved by Engineer.</p> <p>b) Contractor must perform a survey of the existing installation at the design stage and provide compatible material and equipment as reviewed and approved by Engineer.</p> <p>c) To be determined at the design stage and approved by the Engineer.</p> <p>d) Modification of the existing SDH equipment is included in the Scope of Works of the Contractor</p> <p>e) The Contractor may propose solutions acceptable to the Engineer. However, the new project substations shall be integrated with the existing</p>

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		at New hetauda & Lapsiphedi S/s . Please confirm.	telecommunication network and interfacing is essential.
21.	<p>Lot 1 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 4 of 52 Clause 1.1 g).iv) General <i>iv. The fiber optic communication used for protection purpose between the Relays at the two ends of the circuit shall be as per the requirement.</i></p>	<p>1. Please confirm requirement under this project is Digital Protection Coupler is for Distance Protection only & no differential Protection interface are to be proposed with offered D&I Mux equipment.</p> <p>2. Please confirm DPC qty & same is to be offered distance protection for following lines: Ratamate- New Hetauda 400kV D/C - 8 Nos. (4 at each end) Ratamate- Lapsiphedi 400kV D/C - 8 Nos. (4 at each end).</p> <p>3. Please provide specification of Digital protection coupler. Whether NEA specification of DPC i.e. 4 command , E1 , 48 V DC operated , Commands voltage upto 220VDC to be followed or additional IEC61850 ed.2 gose messaging support to be available in offered Digital Protection coupler equipment. Please confirm.</p>	<p>1- Differential protection shall be linked directly with or without Raman pumps or equivalent amplification.</p> <p>2- For each line, two redundant protection relays with their corresponding telecommunication interfaces shall be provided.</p> <p>3- To be determined and approved by the Engineer at the design stage</p>
22.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 5 of 52 Clause 1.1 i) General <i>i. Digital type measuring equipment shall comply with ITU-T (CCITT) Recommendation O.151.</i></p>	Please confirm whether Digital Type Measuring equipment are to be supplied. If yes provide detailed specification & quantities of Measuring equipment so that all bidders will be on same platform.	Please refer to previous clarifications (Please refer clarification 1, 2 and 3).

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23.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 6 of 52 Clause 1.2. i) TELECOMMUNICATION INTERFACE REQUIREMENT <i>i. Testing tools for STM1,4, 16& 64 shall be supplied.</i></p>	<p>Please confirm whether Testing Tools for STM-1, 4, 16 & 64 are to be supplied. If yes, provide detailed specification & quantities of Measuring equipment so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
24.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 7 of 52 Clause 2. c) FIBER OPTIC PATCH CABLES <i>c. Contractor to provide new RFTU to integrate to existing NEA EXFO NQMSFiber Remote Fiber Testing System. The new RFTS requirement shall be equal with existing RFTUM.</i></p>	<p>Please confirm requirement of new RFTU for integration to existing NEA EXFO Fiber Remote Fiber Testing System. Whether supply of the same in scope or not? Please provide detailed specification & quantity for this requirement.</p>	<p>Please refer to previous clarifications. The Contractor to ensure integration with the existing NEA system as approved at the design stage by the Engineer.</p>
25.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 7 of 52 Clause 2.1.b to e) GENERAL NETWORK CHARACTERISTICS <i>b. The SDH node shall be used for interconnection of terminal Substation to the fibre optic network and shall be based on the Synchronous Digital Hierarchy(SDH) having bit rate of STM-4/16 as specified in price schedule.</i> <i>c. New Generation SDH STM-16</i></p>	<p>1. Requirement of SDH Equipment not clear, please confirm whether SDH Equipment requirement is for STM-1/4/16 2. Upgradability to STM-64 is not understood as NEA requirement currently is for STM-4/16 or MPLS-TP 1G/10G interfaces (~STM-64). In case offered equipment chassis supports MPLS-TP 1G or 10 G (equivalent to STM-64) & same can be upgraded in future with MPLS-TP interface cards, will it be acceptable to MCA. Please confirm 3. SDH Technology is getting obsolete &</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

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	<p><i>(Upgradeable to STM-64 Add/Drop Multiplexers (ADM)/ Equipment shall be provided and installed by CONTRACTOR at all sites to establish the fiber optics links specified in the SOW/TS. Specific system requirement of the New Generation SDH STM-16 Add/Drop Multiplexer equipment.</i></p> <p><i>d. CONTRACTOR shall provide and install STM-16 Optical Interface cards/modules with single STM-16 TX and RX optical ports in each card/module.</i></p> <p><i>e. The SDH node will be upgradeable to STM-64.</i></p>	<p>only few selected manufacturers in Power Utility domain manufactures SDH equipment which supports STM-64 upgradability. Most of Utilities including NEA are transitioning for existing SDH installed base to MPLS-TP. Hence we request MCA to either limit the requirement to STM-1/4/16 which is used in NEA network in existing & ongoing requirements or in case much more capacity requirement please consider Hybrid MPLS-TP equipment which supports MPLS-TP/SDH/PDH with 1 G or 10G interfaces additionally it can provide STM-1/4/16 interfaces for interfacing with existing SDH equipment.</p>	
26.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 8 of 52 Clause 2.1.j) GENERAL NETWORK CHARACTERISTICS</p> <p><i>j. Provide, install, test and commission (13 Nos.) thirteen sets of data/voice Multiplexer (Drop/Insert Operation). The Data/Voice Multiplexer equipment design shall be provided with 2 x 2.048Mbit/s aggregate ports, redundant power supply cards and redundant cross connect matrix cards (and/or E1 cards). Analog Voice and Data Interface cards shall be provided.</i></p>	<p>Requirement is not clear. Is it requirement of 13 Nos. D&I Mux at Ratamate S/S or same is mentioned by mistake. Please provide detailed requirement for this point or else delete this clause.</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

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27.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 9 of 52 Clause 2.1 q) GENERAL NETWORK CHARACTERISTICS <i>The offered transmission equipment (SDH node) shall support an optical link of at least 375 km for STM-4 and 400 km for STM-16 without any repeater station in between. If required, a wavelength translator/optical amplifier shall be provided by the contractor.</i></p>	<p>Please confirm type of optical interfaces proposed under this project for optical links to be proposed under this project i.e. STM-4 or STM-16.</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3). To be determined and approved by the Engineer</p>
28.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 9 of 52 Clause 2.2.b) & c) TRANSMISSION EQUIPMENT <i>b. SDH node will be STM-16 with five (5) MSP protected directions.</i> <i>c. Two (2) STM-16 (2.5Gbps) Aggregate optical fiber Interface cards operating in 1+1 protected configuration (4Fiber 1+1 MSP) directions towards remote substations each.</i></p>	<p>1. We understand equipment to be proposed is STM-16,5 MSP & only 2 directions out of 5 protected directions should be equipped. Please confirm our understanding. 2. SDH Technology is getting obsolete & only few selected manufacturers in Power Utility domain manufactures SDH equipments. Most of Utilities including NEA are transitioning for existing SDH installed base to MPLS-TP. Please change requirement to MPLS-TP Hybrid 1G , 5 Protected directions. 3. In case bidder offers equivalent MPLS-TP 1G 5 Protected directions will it be acceptable. Please confirm.</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>
29.	<p>Lot 1:</p>	<p>1. Please confirm whether new NMS to be supplied for monitoring of offered NG-SDH Equipment at Ratamate S/S or bidder has to</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

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	<p>Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 10 of 52, 11 of 52 Clause 2.2.i) 2.2.1 TRANSMISSION EQUIPMENT NETWORK MONITORING (CRAFT TERMINAL BASED) <i>The New Generation SDH STM-16/4/1/2M Add/Drop Multiplexer equipment shall fully operate with the existing and/or new Telecommunication Network Management Systems.</i> <i>i. The craft terminal for telecommunications equipment will be part of the engineering workstations.</i> <i>iv. Provide THREE (3) Local Craft Terminals (loaded with original Operating System and Application software) with interface converters and complete accessories (battery pack, Power supply, carrying bag & optical mouse) to carry-out all local maintenance, Configuration, provisioning and alarm</i> <i>v. Provisioning will be in the Local Craft Terminal for integration with a full NMS server.</i></p>	<p>supply only 03 Nos. LCT terminals loaded with craft terminal software for maintenance , configuration & provisioning. 2. Please confirm Laptops should be workstation based & no laptop to be provided for this requirement. 3. In case only Craft terminals to be offered then requirement of integration with full NMS server is not understood. If OEM didn't have existing NMS in NEA/MCA network how to integrate craft terminal as existing NMS is proprietary in nature.</p>	
30.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 15 of 52 Clause 3.4 3.5.ii)</p>	<p>Please confirm whether 24 F or 48F Fiber Rackmounted /Wall Mounted fiber FODP to be proposed at Ratamate GIS S/S. Please confirm whether existing FODP's at Lapsipedi & New Hetauda (existing FO Approach Cable are already terminated) can</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

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	<p>OPTICAL FIBRE TERMINATION AND SPLICING FIBER OPTIC DISTRIBUTION PANELS</p> <p><i>The Contractor shall provide rack/wall mounted Fibre Optic Distribution Panels (FODPs) sized as indicated in the appendices and shall terminate the fibre optic cabling up to the FODPs.</i></p> <p><i>ii. All FODPs will use the same connectors that existing FODPs use at Hetauda, Lapsiphedhi and New Damauli. If information is not available SC connectors are preferred.</i></p>	<p>be used for new link i.e. New Hetauda to Ratamate & Ratamate to Lapsiphedhi or new FODP's are to be supplied at Ratamate, New hetauda & Lapsiphedhi S/S's</p>	
31.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) 220913_B02_GTR Page 20 of 52,17 of 53,11 of 68 Clause 10, 10.3, 1.3 Testing TYPE TESTING, INSPECTION, TESTING & INSPECTION CERTIFICATE</p> <p><i>c. All Telecom equipment with all types of cards being supplied will conform to Type Tests as per Sections 10.1 to 10.5. The test reports submitted will be of the tests conducted within the last five (5) years.</i></p> <p><i>d. In case the test reports are older than five (5) years, the Contractor will repeat these tests at no extra cost to the</i></p>	<p>Please confirm requirement of Type tests for Telecom is 10 years or 5 Years as both Technical specifications, PSR & GTR requirement are conflicting.</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

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	<p><i>Employer.</i></p> <p><i>10.3 The test reports submitted shall be of the tests conducted within the last 10 (ten) years before the originally scheduled date of bid opening.</i></p> <p><i>1.3 Only type tested equipment shall be used. Type test reports of similar equipment - in terms of mechanical and electrical size/measures, mechanical and electrical technical data, similar model type, and not older than 10 years at bid opening, shall be accepted. Type Test Reports shall be subject to the Engineer's approval. If no type test certificates are available, the relevant type tests shall be performed at the Contractor's expenses.</i></p>		
32.	<p>Lot 1:</p> <p>Part 2: Employer's Requirements</p> <p>Section V B1 (Technical Specifications)</p> <p>Page 33 of 52 Clause 10.8</p> <p>PHASES FOR SITE ACCEPTANCE TESTING</p> <p>v. <i>Testing Tools</i></p> <p>a. <i>All testing kits for STM1, 4 16 & 64 shall be supplied</i></p> <p>b. <i>Testing kits for VC12 and VC4 shall be supplied</i></p> <p>c. <i>Ethernet testing tools shall be supplied.</i></p> <p>d. <i>OTDR and power & Sources shall be supplied.</i></p>	<p>Please confirm whether Testing Tools are to be supplied. If yes, provide detailed specification & quantities of Testing tools so that all bidders will be on same platform.</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>
33.	<p>Lot 1:</p>	<p>Please provide configuration of offered EPABX system at RATAMATE S/S as details mnot provided TS/Technical</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

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	<p>Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 38 of 52 Clause 1 TELEPHONE SYSTEM <i>The present section outlines the Technical Requirements applicable for the design, supply, installation and commissioning of VoIP private branch exchanges (EPABX) to be installed in Ratmate and associated telephone equipment for a complete operational private telephone system to be installed in related substations as an extension of the existing NEA phone system.</i> <i>These technical requirements shall always be read in conjunction with the "General Technical requirements" in B.02 and Technical Data sheets in Vol.2</i></p>	<p>datasheet i.e</p> <ol style="list-style-type: none"> 1. no. Analog/ Digital Subscribers, 2. no. of IP Subscribers, 3. No. of E1 Interface, 4. No. of E&M Interface 5. CO Lines 6. Power Supply & Control Card Redundancy required or not 7. Operater Console PC Based or Phone based 8. Analog Subscriber qty & specification 9. DIgital Subscriber phone qty & specification 10. Attendant Phones qty & specification 11. Outdoor Telephone Sets quantity & Specification 12. IP Phone Qty & specification (SIP based or open SIP) 	
34.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 39 of 52 Clause 2.e) EQUIPMENT TECHNICAL PARTICULARITIES <i>e. The EPABX shall be supplied to provide for the initial requirements as specified in the Technical Data Schedules and 100% spare capacity. It shall also be designed for future expansion (ultimate capacity) equivalent to at least 100 % of the</i></p>	<p>We understand EPABX to be supplied wired with required interfaces & it should have 200% spare capacity for future. Please confirm</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<i>installed capacity. The EPABX shall be flexible and allow for easy growth</i>		
35.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 40 of 52 Clause 2.i) EQUIPMENT TECHNICAL PARTICULARITIES <i>i. The EPABX will be supplied along with one attendant console and provision for operation with various attendant consoles including their cabling accessories to allow connection to the MDF.</i></p>	Please provide attendant console requirement & expandability requirement for attendant consoles.	Please refer previous clarifications(Please refer clarification 1, 2 and 3).
36.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 40 of 52 Clause 2.h) EQUIPMENT TECHNICAL PARTICULARITIES <i>h. Multiconductor interconnection cables (5 meters length minimum) will be fitted at one end to the EPABX by means of a plug-in connector and at the other end to the wall-mounted Main Distribution Frame (MDF) terminals. All PBX circuits shall be terminated to the MDF. All external cables in the EPABX enclosure shall enter through the bottom plate.</i></p>	5 Meter 10 PAIR Jelly filled Telephone cable to be supplied with EPABX for Analog Subscriber/Remote Subscribers.	Please refer previous clarifications. (Please refer clarification 1, 2 and 3).

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
37.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 40 of 52 Clause 2.k) EQUIPMENT TECHNICAL PARTICULARITIES</p> <p><i>k. The EPABX at Ratmate should be linked (Via SDH fiber optic network) with the other EPABX (installed in other NEA substation) by means of digital trunks (such as E1(2048 kb/s) of 30 voice channels) with (Refer to diagram in #8 Figure):</i></p> <p><i>i. Hetauda ECC passing through New Hetauda substation directly to Hetauda</i></p> <p><i>ii. LDC passing through Lapsipedi-Bahrabishe-New Khimti Lamosangu-Bhaktapur to ECC</i></p> <p><i>iii. New Dhalkebar PBX passing through Lapsipedi-Bahrabishe-New Khimti</i></p> <p><i>iv. New Hetauda PBX</i></p> <p><i>v. The EPABX at Ratmate will be linked to other EPABX of NEA network by means of 4W E/M trunks as defined during initial design.</i></p>	<p>Please confirm E1/E&M /FXS interfaces for Remote subscriber & existing EPABX integration will be provided by MCA/NEA. Existing EPABX configuration for integration will be in scope of MCA/NEA. Please confirm.</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>
38.	<p>Lot 1: Part 2: Employer's Requirements Section V B1 (Technical Specifications)</p>	<p>Telephone Cabling in existing S/S's in New Hetauda and New Butwal & at Ratamate office, equipment room, guard room, control</p>	<p>Please refer previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p>Page 46 of 52 <i>h. The number of telephone sets to be installed is as follow:</i> <i>i. One digital IP based Attendant console (Ratmate)</i> <i>ii. Two digital IP based Operators phone in each substation control room (Ratmate, New Hetaudi and New Butwal)</i> <i>iii. One digital IP based phone set for each office, each equipment room, conference room and guard room of each substation</i> <i>iv. Two digital IP based phone sets located conveniently in each of Lapsiphedi and New Hetauda substation control building</i> <i>v. Three digital IP based phone in each GIS hall of each substation</i> <i>vi. 10 Outdoor phone sets located strategically in the switchyard near maneuvering points and power transformers of each substation</i></p>	<p>building, switchyard room will be in scope of MCA/NEA. Please confirm</p>	
39.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 4 of 49 Clause 1.1 b), 1.1 d) & 1.1 e) General <i>b. The sites included in this specification are the following:</i> <i>i. 400 kV New Butwal GIS Substation</i></p>	<p>Dear MCA team we expect clear and technical replies because prices are quoted on basis of data now and not on basis of engineering stage. We also request MCA to take help of NEA for understanding of network. We understand scope of work involves supply of new SDH and Multiplexer equipment at New Butawal GIS S/S and augmentation of existing SDH equipment at Indian Border Gorakhpur & New Damauli.</p>	<p>MCA-Nepal has provided clarifications to all the bidders based on the available information with MCA-Nepal. Furthermore, as this is a design build contract, Bidders are advised to quote accordingly.</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>d. The Contractor will be responsible for supply and installation of Interface cards of SDH multiplexer plus phone sets and coordinate with Ratmate Contractor through MCA-Nepal.</i></p> <p><i>e. The Gorakhpur Substation to be connected with 400kV New Butwal Gorakhpur transmission line may adopt Digital Protection Coupler (DPC). The Digital Protection Coupler matching with the Gorakhpur S/S and associated power & control cables, fibre cables and accessories for New Butwal S/S is under the present scope of work and shall be used for tele protection application.</i></p> <p><i>f. New SDH FO communication links, with associated terminal equipment, are required at 400 kV substations in New Damauli and New India Border to integrate the existing communication network to the new 400 kV substations.</i></p>	<p>In view of the same, please provide following:</p> <p>a) Make & Model of existing SDH cum Multiplexer equipment at Gorakhpur, India & New Damauli</p> <p>b) STM level (STM-1/4/16)</p> <p>c) Slot/optical & Electrical interface cards/ports availability for proposed integration with new SDH at New Butawal GIS S/S in MCA/NEA scope.</p> <p>d) Please confirm modification of configuration in existing SDH Equipments at Gorakhpur & New Damauli will be done by Purchaser.</p> <p>e) Please confirm new SDH Equipments can be proposed at Gorakhpur & New Damauli in-lieu of integration/interfacing requirement of new proposed SDH equipment at New Butawal S/S with existing SDH equipments at Gorakhpur & New Damauli S/s . Please confirm</p>	<p>a) Contractor must perform a survey of the existing installation at the design stage and provide compatible material and equipment as reviewed and approved by Engineer</p> <p>b) The Contractor must perform a survey of the existing installation at the design stage and provide compatible material and equipment as reviewed and approved by Engineer</p> <p>c) To be determined at the design stage and approved by the Engineer</p> <p>d) Modification of existing SDH equipment is included in the Scope of Work of the Contractor</p> <p>e) The Contractor may propose solutions acceptable to the Engineer. However, the new project substations shall be integrated with the existing</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
		f) Requirement of supply & installation of SDH interface cards at Ratamate S/S is mentioned by mistake & there is no integration requirement with RATAMATE S/S of proposed SDH equipment at New Butawal.	telecommunication network and interfacing is essential. f) Bidders may please review Figure-1 under CHAPTER-13 for better understanding.
40.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) 221123_Lot2_NBW_PSR Page 4 of 49, 13 of 64 Clause 1.1 g).iv), 2.1.1.a General <i>c. iv. The fiber optic communication used for protection purpose between the Relays at the two ends of the circuit shall be as per the requirement.</i> <i>e. The Gorakhpur Substation to be connected with 400kV New Butwal Gorakhpur transmission line may adopt Digital Protection Coupler (DPC). The Digital Protection Coupler matching with the Gorakhpur S/S and associated power & control cables, fibre cables and accessories for New Butwal S/S is under the present scope of work and shall be used for tele protection application. Each DPC shall be interfaced with SDH/MUX telecommunication terminal located in the control room required for the</i></p>	<p>1. Please confirm requirement under this project is Digital Protection Coupler is for Distance Protection only & no differential Protection interface are to be proposed with offered D&I Mux equipment. 2. Please confirm DPC qty & same is to be offered distance protection for following lines: New Butawal- New Damauli 400kV D/C - 8 Nos. (4 at each end, 4 Nos. for New Damauli will be considered in LOT-3) New Butawal- Gorakhpur 400kV D/C - 4 Nos. (2 at each end). Analog Protection Coupler through PLCC New Butawal- Gorakhpur 400kV D/C - 4 Nos. (2 at each end) 3. Please confirm proposed DPC & existing SDH at Gorakhpur S/S are located in control room & same is not kiosk based & DPC panel situated within distance of 40 meter & there is no requirement of E1-FO Converter for E1 extension for DPC to SDH interfacing.</p>	<p>1- Differential protection shall be linked directly with or without Raman pumps or equivalent amplification 2- For each line, two redundant protection relays with their corresponding telecommunication interfaces shall be provided. 3- To be determined and approved by the Engineer at the design stage</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>communication with present SAS and SCADA system of NEA. 2.1.1.1.a PLCC system along with necessary coupling equipment, line traps and cables need to be installed in each of 400kV D/C Lines going towards Indo-Nepal border to extend to Gorakhpur Substation in UP of India are also included in the scope.</i></p>		
41.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 5 of 49 Clause 1.1 i) General <i>i. Digital type measuring equipment shall comply with ITU-T (CCITT) Recommendation O.151.</i></p>	<p>Please confirm whether Digital Type Measuring equipments are to be supplied. If yes provide detailed specification & quantities of Measuring equipment so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
42.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 6 of 49 Clause 1.2. i) TELECOMMUNICATION INTERFACE REQUIREMENT <i>i. Testing tools for STM1,4, 16& 64 shall be supplied.</i></p>	<p>Please confirm whether Testing Tools for STM-1,4, 16 & 64 are to be supplied. If yes provide detailed specification & quantities of Measuring equipment so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
43.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 7 of 49 Clause 2. C) FIBER OPTIC PATCH CABLES</p>	<p>Please confirm requirement of new RFTU for integration to existing NEA EXFO Fiber Remote Fiber Testing System. Whether supply of the same in scope or not ? Please provide detailed specification & quantity for this requirement.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>c. Contractor to provide new RFTU to integrate to existing NEA EXFO NQMSFiber Remote Fiber Testing System. The new RFTS requirement shall be equal with existing RFTUM.</i></p>		
44.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 7 of 49 Clause 2.1.b to e) GENERAL NETWORK CHARACTERISTICS <i>b. The SDH node shall be used for interconnection of terminal Substation to the fibre optic network and shall be based on the Synchronous Digital Hierarchy(SDH) having bit rate of STM-4/16 as specified in price schedule.</i> <i>c. New Generation SDH STM-16 (Upgradeable to STM-64) Add/Drop Multiplexers (ADM)/ Equipment shall be provided and installed by CONTRACTOR at all sites to establish the fiber optics links specified in the SOW/TS. Specific system requirement of the New Generation SDH STM-16 Add/Drop Multiplexer equipment.</i> <i>d. CONTRACTOR shall provide and install STM-16 Optical Interfacecards/modules with single STM-16 TX and RX optical ports in eachcard/module.</i></p>	<p>1. Requirement of SDH Equipment not clear , please confirm whetehr SDH Equipment requirement is for STM-1/4/16 2. Upgradability to STM-64 is not understood nas NEA requirement currently is for STM-4/16 or MPLS-TP 1G/10G interfaces (~STM-64). In case offered equipment chassis supports MPLS-TP 1G or 10 G (equivalent to STM-64) & same can be upgraded in fiuture with MPLS-TP interface cards, will it be acceptable to MCA. Please confirm 3. SDH Technology is getting obsolete & only few selected manufacturers in Power Utility domain manufactures SDH equipments which supports STM-64 upgradability. Most of Utilities including NEA are transitioning for existing SDH installed base to MPLS-TP. Hence we request MCA to either limit the requirement to STM-1/4/16 which is used in NEA network in existing & ongoing requirements or in case much more capacity requirement please consider Hybrid MPLS-TP equipment which supports MPLS-TP/SDH/PDH with 1 G or 10G interfaces additionally it can provide STM-1/4/16 interfaces for interfacing with existing SDH equipment.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<i>e. The SDH node will be upgradeable to STM-64.</i>		
45.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 8 of 52 Clause 2.1.j) GENERAL NETWORK CHARACTERISTICS</p> <p><i>j. Provide, install, test and commission (13 Nos.) thirteen sets of data/voice Multiplexer (Drop/Insert Operation). The Data/Voice Multiplexer equipment design shall be provided with 2 x 2.048Mbit/s aggregate ports, redundant power supply cards and redundant cross connect matrix cards (and/or E1 cards). Analog Voice and Data Interface cards shall be provided.</i></p>	<p>Requirement is not clear. Is it requirement of 13 Nos. D&I Mux at Ratamate S/S or same is mentioned by mistake. Please provide detailed requirement for this point or else delete this clause.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
46.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 9 of 49 Clause 2.1 q) GENERAL NETWORK CHARACTERISTICS</p> <p><i>The offered transmission equipment (SDH node) shall support an optical link of at least 375 km for STM-4 and 400 km for STM-16 without any repeater station in between. If required, a wavelength</i></p>	<p>Please confirm type of optical interfaces proposed under this project for optical links to be proposed under this project i.e. STM-4 or STM-16.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<i>translator/optical amplifier shall be provided by the contractor.</i>		
47.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 9 of 49 Clause 2.2.b) & c) TRANSMISSION EQUIPMENT <i>b. SDH node will be STM-16 with five (5) MSP protected directions.</i> <i>c. Two (2) STM-16 (2.5Gbps) Aggregate optical fiber Interface cards operating in 1+1 protected configuration (4Fiber 1+1 MSP) directions towards remote substations each.</i></p>	<p>1. We understand equipment to be proposed is STM-16,5 MSP & only 2 directions out of 5 protected directions should be equipped. Please confirm our understanding. 2. SDH Technology is getting obsolete & only few selected manufacturers in Power Utility domain manufactures SDH equipments. Most of Utilities including NEA are transitioning for existing SDH installed base to MPLS-TP. Please change requirement to MPLS-TP Hybrid 1G , 5 Protected directions. 3. In case bidder offers equivalent MPLS-TP 1G 5 Protected directions will it be acceptable. Please confirm.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
48.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 10 of 49, 11 of 49 Clause 2.2.i), 2.2.1 TRANSMISSION EQUIPMENT NETWORK MONITORING (CRAFT TERMINAL BASED) <i>The New Generation SDH STM-16/4/1/2M Add/Drop Multiplexer equipment shall fully operate with the existing and/or new Telecommunication Network Management Systems.</i> <i>i.The craft terminal for</i></p>	<p>1. Please confirm whether new NMS to be supplied for monitoring of offered NG-SDH Equipment at Ratamate S/S or bidder has to supply only 03 Nos. LCT terminals loaded with craft terminal software for maintenance , configuration & provisioning. 2. Please confirm Laptops should be workstation based & no laptop to be provided for this requirement. 3. In case only Craft terminals to be offered then requirement of integration with full NMS server is not understood. If OEM didn't have existing NMS in NEA/MCA network how to integrate craft terminal as existing NMS is proprietary in nature.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>telecommunications equipment will be part of the engineering workstations.</i></p> <p><i>iv. Provide THREE (3) Local Craft Terminals (loaded with original OperatingSystem and Application software) with interface converters and completeaccessories (battery pack, Power supply, carrying bag & optical mouse) to carry-out all local maintenance, Configuration, provisioning and alarm</i></p> <p><i>v. Provisioning will be in the Local Craft Terminal for integration with a fullNMS server.</i></p>		
49.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 15 of 49, Clause 3.4 OPTICAL FIBRE TERMINATION AND SPLICING <i>The Contractor shall provide rack/wall mounted Fibre Optic Distribution Panels (FODPs) sized as indicated in the appendices and shall terminate the fibre optic cabling up to the FODPs.</i></p>	<p>Please confirm whether 24 F or 48F Fiber Rackmounted /Wall Mounted fiber FODP to be proposed at New Butawal GIS S/S .</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
50.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) 220913_B02_GTR 221123_Lot2_NBW_PSR Page 11 of 49, 17 of 53, 11 of 64 clause 11, 10.3</p>	<p>Please confirm requirement of Type tests for Telecom is 10 years of 5 Years as both Technical specifications, PSR & GTR requirement are conflicting.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p>Testing TYPE TESTING, INSPECTION, TESTING & INSPECTION CERTIFICATE</p> <p><i>c. All Telecom equipment with all types of cards being supplied will conform to Type Tests as per Sections 10.1 to 10.5. The test reports submitted will be of the tests conducted within the last five (5) years.</i></p> <p><i>d. In case the test reports are older than five (5) years, the Contractor will repeat these tests at no extra cost to the Employer.</i></p> <p><i>10.3 The test reports submitted shall be of the tests conducted within the last 10 (ten) years before the originally scheduled date of bid opening.</i></p> <p><i>1.3 Only type tested equipment shall be used. Type test reports of similar equipment - in terms of mechanical and electrical size/measures, mechanical and electrical technical data, similar model type, and not older than 10 years at bid opening, shall be accepted. Type Test Reports shall be subject to the Engineer's approval. If no type test certificates are available, the relevant type tests shall be performed at the Contractor's expenses.</i></p>		
51.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 35 of 49 Clause 11.8</p>	<p>Please confirm whether Testing Tools are to be supplied. If yes, provide detailed specification & quantities of Testing tools so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p>PHASES FOR SITE ACCEPTANCE TESTING</p> <p>v. <i>Testing Tools</i></p> <p>a. <i>All testing kits for STM1, 4 16 & 64 shall be supplied</i></p> <p>b. <i>Testing kits for VC12 and VC4 shall be supplied</i></p> <p>c. <i>Ethernet testing tools shall be supplied.</i></p> <p>d. <i>OTDR and power & Sources shall be supplied.</i></p>		
52.	<p>Lot 2</p> <p>Part 2: Employer’s Requirements</p> <p>Section V B1 (Technical Specifications)</p> <p>Page 40 of 49 Clause 1</p> <p>TELEPHONE SYSTEM</p> <p><i>The present section outlines the Technical Requirements applicable for the design, supply, installation and commissioning of VoIP private branch exchanges (EPABX) to be installed in New Butawal and associated telephone equipment for a complete operational private telephone system to be installed in related substations as an extension of the existing NEA phone system. These technical requirements shall always be read in conjunction with the “General Technical requirements” in B.02 and Technical Data sheets in Vol.2</i></p>	<p>Please provide configuration of offered EPABX system at RATAMATE S/S as details not provided TS/Technical datasheet i.e.</p> <ol style="list-style-type: none"> 1. No. Analog/ Digital Subscribers, 2. No. of IP Subscribers, 3. No. of E1 Interface, 4. No. of E&M Interface 5. CO Lines 6. Power Supply & Control Card Redundancy required or not 7. Operater Console PC Based or Phone based 8. Analog Subscriber qty & specification 9. Digital Subscriber phone qty & specification 10. Attendant Phones qty & specification 11. Outdoor Telephone Sets quantity & Specification 12. IP Phone Qty & specification (SIP based or open SIP) 	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
53.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 41 of 49 Clause 2 EQUIPMENT TECHNICAL PARTICULARITIES <i>The EPABX(s) will be located in the telecommunication room of Ratmate Substation to be built by Ratmate substation works contractor under MCA-Nepal substations Control buildings along with other communication equipment.</i> <i>b. The Contractor will link with EPABX at Ratmate substation through remote extension via the SDH link</i></p>	<p>We understand RATAMATE S/S is mentioned by mistake & same should be read as New Butawal & there is integration requirement with RATAMATE S/S. Please confirm</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
54.	<p>Lot 2 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 43 of 49 <i>h. The number of telephone sets to be installed is as follow:</i> <i>i. Two digital IP based Operators phone in each substation control room (New Butwal, New Damauli)</i> <i>ii. One digital IP based phone set for each office, each equipment room, conference room and guard room of each substation</i> <i>iii. Three digital IP based phone in each GIS hall of each substation</i></p>	<p>Telephone Cabling in existing S/S's in New Damauli 1 & at New Butawal office, equipment room , guard room , control buiding, switchyard room will be in scope of MCA/NEA. Please confirm</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>iv. 10 Outdoor phone sets located strategically in the switchyard near maneuvering points and power transformers of each substation</i></p> <p><i>v. Two analogue 2W phone set for any local PSTN (Public Switched Telephone Network) lines for each substation</i></p>		
55.	<p>Lot 3</p> <p>Part 2: Employer's Requirements</p> <p>Section V B1 (Technical Specifications)</p> <p>Page 3 of 44 Clause 1.1 b), 1.1 d) & 1.1 e)</p> <p>General</p> <p><i>b. The sites included in this specification are the following:</i></p> <p><i>i. 400/220 kV New Damauli GIS Substation</i></p> <p><i>d. The Contractor will be responsible for supply and installation of Interface cards of SDH multiplexer plus phone sets and coordinate with Ratmate Contractor through MCA-Nepal.</i></p> <p><i>e. New SDH FO communication links, with associated terminal equipment, are required at 400 kV substations in Ratmate and New Butwal to integrate the existing communication network to the new 400 kV substations.</i></p>	<p>Dear MCA team we expect clear and technical replies because prices are quoted on basios of data now and not on basis of engineering stage. We also request MCA to takew help of NEA for undetsraing of network.</p> <p>We understand scope of work invloves supply of new SDH and Multiplexer equipment at New Damauli GIS S/S and augmentation of existing SDH equipment at Ratamate (to be supplied in LOT-1) & New Butawal (to be supplied in LOT-2).</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
56.	<p>Lot 3</p> <p>Part 2: Employer's Requirements</p> <p>Section V B1 (Technical</p>	<p>1. Please confirm requirement under this project is Digital Protection Coupler is for Distance Protection only & no differential</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p>Specifications) 221123_Lot3_NDM_PSR Page 3 of 44, 5 of 62 Clause 1.1 c).iv), 1.1.b) General Project Description & Scope <i>c. iv. The fiber optic communication used for protection purpose between the Relays at the two ends of the circuit shall be as per the requirement.</i> <i>b. The following transmission lines are associated with substation:</i> 1. <i>New Damauli – Ratmate 400 kV D/C Lines: 89 km (along with OPGW)</i> 2. <i>New Damauli – New Butwal 400 kV D/C Lines:90 km (along with OPGW)</i></p>	<p>Protection interface are to be proposed with offered D&I Mux equipment. 2. Please confirm DPC qty & same is to be offered distance protection for following lines: Ratamate- New Damauli 400kV D/C - 8 Nos. (4 at each end) New Butawal- New Damauli 400kV D/C - 8 Nos. (4 at each end, 4 Nos. of New Butawal considered in LOT-2). 3. Please provide specification of Digital protection coupler. Whetehr NEA specification of DPC i.e 4 commmand , E1 , 48 V DC operated , COMamdn voltage upto 220VDC to be followed or additional IEC61850 ed.2 goose messaging support to be available in offered DIgital Protection coupler equipment. Please confirm.</p>	
57.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 4 of 44 Clause 1.1 h) General <i>Digital type measuring equipment shall comply with ITU-T (CCITT) Recommendation O.151.</i></p>	<p>Please confirm whether Digital Type Measuring equipments are to be supplied. If yes provide detailed specification & quantities of Measuring equipment so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
58.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 5 of 44 Clause 1.2. i)</p>	<p>Please confirm whether Testing Tools for STM-1,4, 16 & 64 are to be supplied. If yes provide detailed specification & quantities of Measuring equipment so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	TELECOMMUNICATION INTERFACE REQUIREMENT <i>i. Testing tools for STM1,4, 16& 64 shall be supplied.</i>		
59.	Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 5 of 44 Clause 2. c) FIBER OPTIC PATCH CABLES <i>c. Contractor to provide new RFTU to integrate to existing NEA EXFO NQMSFiber Remote Fiber Testing System. The new RFTS requirement shall be equal with existing RFTUM.</i>	Please confirm requirement of new RFTU for integration to existing NEA EXFO Fiber Remote Fiber Testing System. Whether supply of the same in scope or not ? Please provide detailed specification & quantity for this requirement.	Please refer to previous clarifications (Please refer clarification 1, 2 and 3).
60.	Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 6 of 44 Clause 2.1.b to e) GENERAL NETWORK CHARACTERISTICS <i>b. The SDH node shall be used for interconnection of terminal Substation to the fibre optic network and shall be based on the Synchronous Digital Hierarchy(SDH) having bit rate of STM-4/16 as specified in price schedule.</i> <i>c. New Generation SDH STM-16 (Upgradeable to STM-64) Add/Drop Multiplexers (ADM)/ Equipment shall be provided and installed by CONTRACTOR at all sites to establish</i>	1. Requirement of SDH Equipment not clear , please confirm whetehr SDH Equipment requirement is for STM-1/4/16 2. Upgradability to STM-64 is not understood nas NEA requirement currently is for STM-4/16 or MPLS-TP 1G/10G interfaces (~STM-64). In case offered equipment chassis supports MPLS-TP 1G or 10 G (equivalent to STM-64) & same can be upgraded in fiuture with MPLS-TP interface cards, will it be acceptable to MCA. Please confirm 3. SDH Technology is getting obsolete & only few selected manufacturers in Power Utility domain manufactures SDH equipments which supports STM-64 upgradability. Most of Utilities including NEA are transitioning for existing SDH	Please refer to previous clarifications (Please refer clarification 1, 2 and 3).

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>the fiber optics links specified in the SOW/TS. Specific system requirement of the New Generation SDH STM-16 Add/Drop Multiplexer equipment.</i></p> <p><i>d. CONTRACTOR shall provide and install STM-16 Optical Interface cards/modules with single STM-16 TX and RX optical ports in each card/module.</i></p> <p><i>e. The SDH node will be upgradeable to STM-64.</i></p>	<p>installed base to MPLS-TP. Hence we request MCA to either limit the requirement to STM-1/4/16 which is used in NEA network in existing & ongoing requirements or in case much more capacity requirement please consider Hybrid MPLS-TP equipment which supports MPLS-TP/SDH/PDH with 1 G or 10G interfaces additionally it can provide STM-1/4/16 interfaces for interfacing with existing SDH equipment.</p>	
61.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 7 of 44 Clause 2.1.j) GENERAL NETWORK CHARACTERISTICS</p> <p><i>j. Provide, install, test and commission (13 Nos.) thirteen sets of data/voice Multiplexer (Drop/Insert Operation). The Data/Voice Multiplexer equipment design shall be provided with 2 x 2.048Mbit/s aggregate ports, redundant power supply cards and redundant cross connect matrix cards (and/or EI cards). Analog Voice and Data Interface cards shall be provided.</i></p>	<p>Requirement is not clear. Is it requirement of 13 Nos. D&I Mux at Ratamate S/S or same is mentioned by mistake. Please provide detailed requirement for this point or else delete this clause.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
62.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 8 of 44 clause 2.1 q)</p>	<p>Please confirm type of optical interfaces proposed under this project for optical links to be proposed under this project i.e STM-4 or STM-16.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>


SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p>GENERAL NETWORK CHARACTERISTICS <i>The offered transmission equipment (SDH node) shall support an optical link of at least 375 km for STM-4 and 400 km for STM-16 without any repeater station in between. If required, a wavelength translator/optical amplifier shall be provided by the contractor.</i></p>		
63.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 8 of 44 Clause 2.2.b) & c) TRANSMISSION EQUIPMENT <i>b. SDH node will be STM-16 with five (5) MSP protected directions.</i> <i>c. Two (2) STM-16 (2.5Gbps) Aggregate optical fiber Interface cards operating in 1+1 protected configuration (4Fiber 1+1 MSP) directions towards remote substations each.</i></p>	<p>1. We understand equipment to be proposed is STM-16,5 MSP & only 2 directions out of 5 protected directions should be equipped. Please confirm our understanding. 2. SDH Technology is getting obsolete & only few selected manufacturers in Power Utility domain manufactures SDH equipments. Most of Utilities including NEA are transitioning for existing SDH installed base to MPLS-TP. Please change requirement to MPLS-TP Hybrid 1G , 5 Protected directions. 3. In case bidder offers equivalent MPLS-TP 1G 5 Protected directions will it be acceptable. Please confirm.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
64.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 9 of 44, 10 of 44 Clause 2.2.i), 2.2.1 TRANSMISSION EQUIPMENT NETWORK MONITORING (CRAFT TERMINAL BASED)</p>	<p>1. Please confirm whether new NMS to be supplied for monitoring of offered NG-SDH Equipment at Ratamate S/S or bidder has to supply only 03 Nos. LCT terminals loaded with craft terminal software for miantenance , configuration & provisioning. 2. Please confirm Laptops should be workstation based & no laptop to be provided for this requirement.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>The New Generation SDH STM-16/4/1/2M Add/Drop Multiplexer equipment shall fully operate with the existing and/or new Telecommunication Network Management Systems.</i></p> <p><i>i. The craft terminal for telecommunications equipment will be part of the engineering workstations.</i></p> <p><i>iv. Provide THREE (3) Local Craft Terminals (loaded with original Operating System and Application software) with interface converters and complete accessories (battery pack, Power supply, carrying bag & optical mouse) to carry-out all local maintenance, Configuration, provisioning and alarm</i></p> <p><i>v. Provisioning will be in the Local Craft Terminal for integration with a full NMS server.</i></p>	<p>3. In case only Craft terminals to be offered then requirement of integration with full NMS server is not understood. If OEM didn't have existing NMS in NEA/MCA network how to integrate craft terminal as existing NMS is proprietary in nature.</p>	
65.	<p>Lot 3</p> <p>Part 2: Employer's Requirements</p> <p>Section V B1 (Technical Specifications)</p> <p>Page 13 of 44 Clause 3.4</p> <p>OPTICAL FIBRE TERMINATION AND SPLICING</p> <p><i>The Contractor shall provide rack/wall mounted Fibre Optic Distribution Panels (FODPs) sized as indicated in the appendices and shall terminate the fibre optic cabling up to the FODPs.</i></p>	<p>Please confirm whether 24 F or 48F Fiber Rackmounted /Wall Mounted fiber FODP to be proposed at New Damauli GIS S/S .</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>


SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
66.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) 220913_B02_GTR 221123_Lot3_NDM_PSR Page 19 of 44, 17 of 53, 10 of 62 Clause 10, 10.3, 1.3.1 Testing TYPE TESTING, INSPECTION, TESTING & INSPECTION CERTIFICATE</p> <p><i>c. All Telecom equipment with all types of cards being supplied will conform to Type Tests as per Sections 10.1 to 10.5. The test reports submitted will be of the tests conducted within the last five (5) years.</i></p> <p><i>d. In case the test reports are older than five (5) years, the Contractor will repeat these tests at no extra cost to the Employer.</i></p> <p><i>10.3 The test reports submitted shall be of the tests conducted within the last 10 (ten) years before the originally scheduled date of bid opening.</i></p> <p><i>1.3.1 The only type of tested equipment shall be used. Type test reports of similar equipment - in terms of mechanical and electrical size/measures, mechanical and electrical technical data, similar model type -, and not older than 10 years at bid opening, shall be accepted.</i></p>	<p>Please confirm requirement of Type tests for Telecom is 10 years of 5 Years as both Technical specifications, PSR & GTR requirement are conflicting.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>


SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
67.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 31 of 44 Clause 10.8 PHASES FOR SITE ACCEPTANCE TESTING</p> <p>v. <i>Testing Tools</i></p> <p>a. <i>All testing kits for STM1, 4 16 & 64 shall be supplied</i></p> <p>b. <i>Testing kits for VC12 and VC4 shall be supplied</i></p> <p>c. <i>Ethernet testing tools shall be supplied.</i></p> <p>d. <i>OTDR and power & Sources shall be supplied.</i></p>	<p>Please confirm whether Testing Tools are to be supplied. If yes provide detailed specification & quantities of Testing tools so that all bidders will be on same platform.</p>	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>
68.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 35 of 44 Clause 1 TELEPHONE SYSTEM</p> <p><i>The present section outlines the Technical Requirements applicable for the design, supply, installation and commissioning of telephone systems to be installed in New Damauli and associated telephone equipment for a complete operational private telephone system to be installed in related substations as an extension of the existing NEA phone system. These technical requirements shall always be read in conjunction with the</i></p>	<p>Please provide configuration of offered EPABX system at RATAMATE S/S as details mnot provided TS/Techhncial datasheet i.e</p> <ol style="list-style-type: none"> 1. no. Analog/ Digital Subscribers, 2. no. of IP Susbcribers, 3. No. of E1 Interface, 4. No. of E&M Interface 5. CO Lines 6. Power Supply & Control Card Redundnacy required or not 7. Operater Console PC Based or Phone based 8. Analog Subscriber qty & specification 9. DIgital Subscriber phone qty & specification 10. Attendant Phones qty & specification 11. Outdoor Telephone Sets quantity & 	<p>Please refer to previous clarifications (Please refer clarification 1, 2 and 3).</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<i>"General Technical requirements" in B.02 and Technical Data sheets in Vol.2</i>	Specification 12. IP Phone Qty & specification (SIP based or open SIP)	
69.	<p>Lot 3 Part 2: Employer's Requirements Section V B1 (Technical Specifications) Page 38 of 44</p> <p><i>h. The number of telephone sets to be installed is as follow:</i></p> <p><i>i. Two digital IP based Operators phone in each substation control room (New Damauli, New Butwal)</i></p> <p><i>ii. One digital IP based phone set for each office, each equipment room, conference room and guard room of each substation</i></p> <p><i>iii. Three digital IP based phone in each GIS hall of each substation</i></p> <p><i>iv. 10 Outdoor phone sets located strategically in the switchyard near maneuvering points and power transformers of each substation</i></p> <p><i>v. Two analogue 2W phone set for any local PSTN (Public Switched Telephone Network) lines for each substation.</i></p>	Telephone Cabling in existing S/S's in New Butwal & at New Damauli office, equipment room , guard room , control buiding, switchyard room will be in scope of MCA/NEA. Please confirm	Please refer to previous clarifications (Please refer clarification 1, 2 and 3).
70.	Lot 1 & Lot 2	Bidders previous query: Please provide information pertaining to New Hetauda, New Butwal and PLCC details of Gorakhpur Substation.	The requested details available with MCA-Nepal are provided for Bidders information in the link below: https://drive.google.com/drive/folders/1443YOm-

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
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SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
71.	<p>CLARIFICATION #1 - 'Sl.no: 75 <i>'Query : As per refered clause, it is mentioned that, The contractor will level the area required for construction of substation work either at single level, multi-level or gradual slope with the finished ground level as approved by the Engineer during detailed engineering based on the highest flood level. Based on plan & elevation enclosed with tender document, we understand that the proposed SS shall be developed with Sloped terrace. In referred drawing of grading plan, the quantity of cutting and filling for the proposed SS is indicated as below</i></p> <ol style="list-style-type: none"> 1. Ratmate S/S - Cutting - 101506.18 cu.m, filling - 110265.82 cu.m 2. Butwall S/S - Cutting - 19189.31 cu.m , Filling - 13658 cu.m 3. Damuali S/S - Cutting - 31450 cu.m , filling - 29981.61 cu.m <p><i>We trust that, the above-mentioned quantity is to be quoted for the substation site grading activity. Based on actual site condition, If any additional qunatity is</i></p>	<p>Based on referred query reply, we understand that for Ratmate Substation levelling shall be done within plot area hatched portion (Area - 250m x 250m (approx.) including future 132kv & 33kV area.</p> <p>Please confirm and also based on scope of work, the 132kV & 33kV area is not in bidder's scope. Kindly provide the FGL for future 132kV & 33kV area to estimate the levelling quantity.</p> <p>For Damuali & Butwal SS levelling shall be done only for 400kV area. Kindly confirm</p> 	<p>Levelling shall be done for the entire footprint of the substation including future 132kV & 33kV area.</p> <p>The Bidder shall calculate the levelling and quantity required of levelling as per their site survey and study. The Contractor shall propose levelling (FGL) which shall be verified and approved by the Engineer during the detailed engineering.</p> <p>Levelling shall be done only for 400kV area in case of New Damauli and New Butwal Substations. Further, bidders are advised to take due consideration of the activities proposed in Addendum #6 & #7.</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>required during detailed engineering stage, the same shall be paid as an additional item with mutually agreed rate. please confirm.</i></p> <p><i>Also, kindly clarify whether the site levelling work shall be done only present scope of work area or future area. "</i></p> <p><i>MCA reply: The provided reports are for reference purpose only and therefore, Bidders are advised to carry out the necessary analysis as per the requirements, subject to the revision during detailed engineering with no financial, technical or resource implications upon MCA-Nepal.</i></p> <p><i>Levelling shall be done for the full scope area as shown in RTE-210-1.</i></p>		
72.	<p>CLARIFICATION #4.2 - 'Sl.no: 688</p> <p><i>'Query: Kindly confirm, Land development, internal road, drain for future area as mentioned at Layout are excluded from bidder's present scope of works.</i></p> <p><i>MCA reply : Land development, internal road, drain for future area as per layout are also included in the bidder's present scope of works</i></p>	<p>As per referred reply, it is mentioned that Land development, internal road, drain for future area as per layout are also included in the bidder's present scope of works.</p> <p>We wish to inform that, for Ratmate SS the 132kV & 33kV scope is excluded from this bid package.</p> <p>We trust that, for ratmate SS the development of road, drain for future 132kV & 33kV is not in bidders scope.</p> <p>Kindly confirm.</p>	<p>Land development, internal road, drain for future area including the portion for 132kV and 33kV side as per layout are also included in the bidder's present scope of works.</p>
73.	<p>Ratmate SS - Price schedule (civil works)</p>	<p>Based on scope of work, we understand that superficial storm drainage system to drain water outside substation during heavy rainfall is in bidder scope.</p>	<p>The External drainage shall be constructed as described in Section 1: General Civil works specification under Chapter 9: Civil</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>'Sl.no: 4.3.2.6 Superficial storm drainage system to drain water outside substation during heavy rainfall</i></p>	<p>Since the peripheral boundary wall is excluded from scope & in the absence of exact boundary length for Ratmate SS, it is very difficult to include the external drainage quantities.</p> <p>We trust that, the external drainage shall be constructed only fenced area marked below (plot area - 250m x 250m).</p> <p>please confirm. if not kindly provide the length & dimensions to be considered for the external drainge.</p> 	<p>Works Specification of the Employer's Requirement.</p>
74.	<p>CLARIFICATION #4.3 - 'Sl.no: 779 <i>'Query: Construction of all internal and external drainage and substation flood protection works, as well as river protection works have to be carried out in conformity to the flood risk assessment following the hydrological study.</i> <i>The Butwal GIS substation is being adjacent to an existing NEA substation, and the nearest river being 25km away from the site and no Fluvial Flood risk is</i></p>	<p>Based on referred reply, we understand that the Hydrological study for small rivers both on the east and west side of the substation need to done for the proposed Butwal SS. However in addendum 7, cl.no: 15 RIVER PROTECTION WORKS , 15.1 Scope of Works for Hydrological and Environmental Assessment of New Butwal Substation Area (pg.no 19/43 Para II), it is mentioned that Based on the findings of the study, if required, the Contractor shall design and construct suitable river protection works for</p>	<p>Confirmed. However, the Contractor must propose the required flood protection works to ensure no existing structures are negatively impacted due to the construction of new structures under the present scope of works.</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>envisaged, we understand the Hydrology Study Report is not required for Butwal substation. Kindly confirm.</i></p> <p><i>MCA reply : The provision in the bidding documents cannot be changed. There are small rivers both on the east and west side of the substation. Hydrological study that includes the flood flow analysis is a must in the case the substation that lies adjacent to small river or rivulets. MCA-Nepal will issue an addendum regarding the hydrological study that need to be done by the contractor at New Butwal Substation after approval form the authority.</i></p>	<p>the parts of the substation allocated to ETP infrastructure.</p> <p>We trust that, if flood protection works is required based on studies, only proposed 400kV area is in bidders scope & no need to do any protection work for existing substation under this package and the same is left as as it is condition.</p> <p>please confirm.</p> 	
75.	<p>Sl. No. 744 of Clarification 4.3</p> <p><i>'Query - We do not envisage any S.C test for the transformer. Also, we do not envisage any SC similarity as per IEC 60076 Part -5. We will submit S.C withstand calculations in the event of order to demonstrate S.C capability of the transformer. Kindly confirm</i></p> <p><i>Response - Each transformer is a custom design unless the design is identical. Therefore, type tests on the first unit are compulsory. OEM should demonstrate</i></p>	<p>Both clarifications conflict with each other.</p> <p>Please confirm which clarification is to be followed.</p>	<p>S.C. withstand test for Autotransformers is not envisaged but bidders are highly encouraged to submit S.C. test reports conducted previously on similar transformers. Alternatively, bidders may submit S.C. withstand calculations in the event of order to demonstrate S.C. capability of the transformer.</p> <p>In case of LT transformers, Bidders are requested to refer clause 2.7 Factory Tests</p>

SN	Reference to the Bidding Document	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p><i>that it has already performed SC tests to verify its design.</i></p> <p>Sl. No. 363 of clarification 2</p> <p><i>Query - We do not envisage any Short Circuit (S.C.) test for the transformer. Also, we do not envisage any SC similarity as per IEC 60076 Part -5. We will submit S.C withstand calculations in the event of order to demonstrate S.C capability of the transformer. This is for your information</i></p> <p><i>Response - Noted</i></p>		<p>under Chapter 4 LV Switchgear Specification for your clarifications.</p>
76.	<p>Transformer PV CRGO index availability</p>	<p>As per price adjustment formula, prices of CRGO are to be referred from various manufacturers.</p> <p>As per general practice such prices are not published and hence are not available with contractors. Hence, please suggest the source of such prices.</p>	<p>We believe that such rates shall be available from the manufacturers if approached properly. As an example, we can cite the link below in case of one of the manufacturers. Kindly visit the website at the link and review it till the end.</p> <p>https://www.nipponsteel.com/en/product/sheet/magnetic_sheet.html</p> <p>There could be ways to obtain such rates from other manufacturers also.</p>