

Lekhnath Damauli 220 kV Transmission Line Project
BMZ 2016 67 773
Package B: Substations
Re-tender

Response to Clarification Request
Pursuant to Bidding Documents, Part 1 - Bidding Procedures, Section I - Instructions to Bidders, Item 7.1

Response No. 3, 15 September 2024

Nº	Reference	Clarification Request	Response
1	Altitude	As per specification Altitude is <1000m for all offered equipment at all sites. Please reconfirm	Confirmed
2	Part 1 Section IV. Bidding Forms Schedule I Price Schedule item no 3.3.1.5 And VII-5 Technical Specification cl 5.5	As per Price Schedule Transformer Spare oil shall be minimum 5% of total oil volume of all transformers installed however as per Technical Specification VII-5 clause 5.5 it is 10%. A) Therefore, Bidder understand that only 5% Transformer oil shall be handed over as Spare oil in separate Oil drums in line with Price Schedule against one unit of each type of Transformers i.e. 105MVA 1Ph 220/132kV at Lekhnath and 63MVA 3ph 220/132kV & 30MVA 3Ph 132/33kV at Damauli Sites. B) Any spare is not applicable for Auxiliary Transformer and Earthing /Aux Zigzag Transformer. Please Confirm our understanding is correct for above points.	The additional 10% mentioned in VII-5 Clause 5.5 are the <u>total quantity to be supplied</u> to ensure that sufficient oil is available on site for erection and commissioning and for spare to be handed over to the Employer. A) Confirmed, the quantity of spare oil to be handed over To the Employer shall be 5% as defined in the BOQ. B) Not confirmed, 5% Transformer oil shall be handed over as spare oil in separate Oil drums.
3	VII-8 Technical Data Sheets 6.1.2.1.8, 6.1.2.1.10 And	For Power Transformer 63 MVA vector group is mentioned as YNyn0+d and also as per Project Scope of work VII-1 clause 3.3.5.1 tertiary is mentioned as Stabilizing type however the voltage and MVA rating of stabilizing winding is not mentioned.	The data of the stabilizing winding are to be determined by the Bidder / Contractor as part of the transformer design.

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	PSR VII-1 3.3.5.1	Bidder request to furnish the same.	
4	VII-8 Technical Data Sheets 6.1.3.1.8, 6.1.3.1.10 And PSR VII-1 3.3.5.2	For Power Transformer 30 MVA vector group is mentioned as YNyn0+d and also as per Project Scope of work VII-1 clause 3.3.5.2 tertiary is mentioned as Stabilizing type however the voltage and MVA rating of stabilizing winding is not mentioned. Bidder request to furnish the same.	The data of the stabilizing winding are to be determined by the Bidder / Contractor as part of the transformer design.
5	VII-8 Technical Data Sheets 6.1.2.1.13 6.1.2.1.14 6.1.3.1.13 6.1.3.1.14	In the referred clauses its mentioned as primary: Uniform & secondary: Uniform However, as per clause 6.1.2.5.7, 6.1.3.5.7, 220kV & 132kV is graded with insulation class 52 kV (250kVp/ 95kV rms) therefore, we will consider graded insulation for HVN winding. Please confirm	The power transformers shall be provided with uniform insulation, as defined in clause-6.1.2.1.13, 6.1.2.1.14, 6.1.3.1.13, 6.1.3.1.14 Clause 6.1.2.5.7 and 6.1.3.5.7 shall be disregarded.
6	VII-8 Technical Data Sheets 6.1.2.16.2, 6.1.3.16.2, 6.1.4.15.2	Magnetic flux density at rated voltage and frequency Max 1.60 however as per cl 6.1.2.2.3, 6.1.3.2.3, 6.1.4.2.3 it is ≤ 1.65 Tesla. Please confirm final requirements	Clarification request is not clear. There is no reference to "1.60 Tesla" in the data sheet. Magnetic flux density at rated voltage and frequency shall be Max 1.65 T as indicated in the data sheet.
7	VII-5 Technical Specifications clause no., 5.2.2.1	As per the referred clause " <i>when operating under the most onerous conditions, the flux density in any part of the magnetic circuit does</i>	Confirmed

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		<p><i>not exceed 1.8 T and the magnetizing current must not exceed 5% of the rated load current at normal rated voltage."</i></p> <p>Here most onerous condition is not specified so, we understand most onerous condition is +/- 10% combine voltage and frequency variation & therefore, depending on that magnetizing current will be higher than specified values.</p> <p>Please confirm.</p>	
8	VII-8 Technical Data Sheets 6.1.2.9.2, 6.1.3.9.3, 6.1.4.9.2	<p>1) We understand RIP type bushing are required for 52 kV and above voltage level similar to other NEA project.</p> <p>Please re- confirm</p> <p>2) Also, we have considered Termination for HV, IV, TV & LV side OIL-AIR Bushings.</p> <p>Please confirm</p>	<p>Clarification request is not clear.</p> <p>1) RIP or RIS type bushing are required for 52 kV and above voltage level as defined in the data sheet.</p> <p>2) Confirmed</p>
9	VII-8 Technical Data Sheets 6.1.3.7	<p>Referring to the extreme tap impedance values may be the impedance requirement @ normal tap shall be 12.5 % against 10.5% Please check and confirm impedance at normal and extreme tap with base MVA</p> <p>Nominal tap : 10,5 Maximum tap : 15,4 Minimum tap : 10,3</p>	<p>Impedance at nominal tap shall be 10,5%, as indicated in the data sheet. Impedance at extreme taps shall be proposed by the Bidder / Contractor subject to approval at design stage.</p>
10	VII-8 Technical Data Sheets 6.1.3.11.6, 6.1.3.13.6, 6.1.4.10.6, 6.1.4.11.6, 6.1.4.6.2	<p>As per the referred clauses 36 kV Rated thermal short time current is 40 kA & as per 6.1.3.6.2 / 6.1.4.6.1 it is 25kA and also as per VII-4 cl 3 the value is 25kA. therefore, we will consider 25kA for 36kV and 11kV.</p> <p>Please confirm</p>	<p>Items 6.1.3.11.6, 6.1.3.13.6,6.1.4.10.6 ,6.1.4.11.6 , refer to the short circuit rating of the transformer bushings, whereas 6.1.3.6.2, 6.1.4.6.2, 6.1.4.6.1 refer to the short circuit level of the system. Both need to be carefully distinguished.</p> <p>The specified values shall apply.</p>

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11	Specification	<p><i>"For power transformer 63 MVA,30 MVA and 8 MVA parallel operation is required with any existing transformer"</i></p> <p>As its green field project, we understand no parallel operation required with any existing Transformer. Please confirm. If parallel operation is required with any existing transformer. Please provide existing transformer rating plate (Rating, Vector group, Ratio, OLTC tapping range), Existing transformer impedances (Max. voltage tap, Normal volt. tap, Min. Volt. tap). Existing OLTC, AVR details and existing OLTC schematics.</p>	<p>It is not clear to which clause the clarification request is referring.</p> <p>The requirement of Section VII-5, clause 5.2.2.13 shall be followed: <i>Transformers shall be able to be operated in parallel with other transformers <u>of the same characteristic</u>.</i></p>
12	VII-8 Technical Data Sheets 6.1.4.1.15	<p>As its vector group is Dyn11 we understand tertiary is not required for 6/8 MVA as its vector group already have Delta winding & further as per VII-1 cl 3.3.5.3 it's not mentioned therefore, we will not consider stabilizing/ tertiary winding for 8 MVA.</p> <p>Please review and confirm</p>	Clarification request is not clear. No stabilizing/ tertiary winding is required for 8 MVA transformers as per the data sheet.
13	VII-3 General Technical Requirements Cl. 11.11.2.1	<p><i>"All major equipment and components shall be type test"</i></p> <p>As per this clause " <i>All major equipment and components shall be type tested, in accordance with the applicable international standards (their latest versions, including all amendments), by an internationally ac-credited independent testing laboratory, not associated with the respective manufacturer. Type tests performed at a manufacturer's laboratory and witnessed by an accredited independent third-party are also acceptable.</i> <i>Accreditation to the testing laboratory/ third party shall be given by a signatory member of International Laboratory Accreditation</i></p>	The specification shall be followed.

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		<p><i>Cooperation (ILAC)."</i></p> <p># Our test lab is NABL accredited & as per NABL: In order, to enable global acceptance of its accredited Conformity Accreditation Bodies (CABs), NABL maintains linkages with the international bodies like International Laboratory Accreditation Co-operation (ILAC) and Asia Pacific Accreditation Co-operation (APAC). NABL has obtained ILAC MRA for Reference Material Producers (RMP) accreditation program (ISO 17034) also, in addition to existing MRA in Testing (ISO/IEC 17025), Medical (ISO 15189), Calibration (ISO/IEC 17025) laboratories and Proficiency Testing Providers (PTP) accreditation program (ISO/IEC 17043)"</p> <p># Transformer Type test shall be carried out at our test lab only which is NABL accredited</p> <p># and for type test of the components we will furnish the type test reports as per supplier(s) similar to previously executed NEA projects.</p> <p># Reference type test shall be provided from our NABL accredited lab witnessed by any of end customer only .</p> <p>Please confirm.</p>	
14	VII-5 Technical Specifications clause no., 5.4.2	We understand losses shall be offered and evaluate as per capitalization rates given in 5.4.2 Evaluation. Please confirm our understanding is correct.	Losses shall be optimized by the Bidder. Clause 5.4 details how losses will be evaluated and penalized.
15	VII-5 Technical Specifications clause no., 5.2.2.1	<i>"end plates of the assembly and clamp structure shall be of a nonmagnetic"</i>	Shall be subject to approval at design stage.

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		<p>The bolts, nuts, and end plates of the assembly and clamp structure shall be of a nonmagnetic /magnetic type depend on our design practices.</p> <p>Please confirm.</p>	
16	VII-5 Technical Specifications clause no., 5.2.2.1, 5.2.2.2	<p><i>"Use of timber for insulation parts subject to test voltage stresses equal to or higher than LI: 550 kV and/or AC: 230 kV shall not be accepted. The Contractor shall be responsible for the selection of insulation material."</i></p> <p>As per OEM standard design practices use wood is also acceptable.</p> <p>Please confirm.</p>	Shall be subject to approval at design stage.
17	VII-5 Technical Specifications clause no., 5.2.2.2	<p>For higher voltages ZnO protective elements may require to reduces stresses in the winding. Therefore, we will consider, if necessary, as per design requirements.</p> <p>Please confirm.</p>	Shall be subject to approval at design stage.
18	VII-5 Technical Specifications clause no., 5.2.2.2	<p>As per this clause "<i>Impedance voltages on extreme tapplings shall not deviate from those for principal tapplings by a percentage value of more than two third (2/3) of the difference in percentage tapping factor between the concerned tapplings and the principal tapplings</i>"</p> <p>This depend based on tap range and different rating therefore we will furnish extreme tap impedance values as per our design.</p> <p>Please confirm.</p>	Confirmed

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19	VII-5 Technical Specifications clause no., 5.2.2.6	<p><i>"hot dip galvanized steel the minimum thickness of galvanizing shall be 100 μm."</i></p> <p>We confirm C5M environment condition as per data sheet HDG and its thickness (e.g. for radiator) where applicable based on our std. practices only but we confirm C5M requirement as per specification</p> <p>Please confirm your acceptance.</p>	The requirement of the specification shall be followed.
20	VII-5 Technical Specifications clause no., 5.2.2.7	<p>Oil shall be inhibited Mineral Oil as per IEC 60296 against mention Mineral / Bio-based oil (in accordance with IEC 61099)</p> <p>Please confirm your acceptance.</p>	Shall be subject to approval at design stage.
21	VII-5 Technical Specifications clause no., 5.2.2.10, 5.2.2.12	<p>As per this clause " <i>The on-load tap changer shall be designed to withstand maximum short-circuit current as specified for the transformer</i>"</p> <p>As OLTC will be installed in phase (winding) therefore, short circuit current will depend on transformer self-impedance only. Accordingly, OLTC will have SC withstand current.</p> <p>Please confirm your acceptance.</p>	Shall be subject to approval at design stage.
22	VII-5 Technical Specifications clause no., 5.2.2.12	<p><i>"OLTC First maintenance, Second maintenance and replacement, Third maintenance "</i></p> <p>Offered OLTC will be Vacuum type Make ABB/ Hitachi, Sweden as per specification & maintenance (first, second, third), replacement period is based on OLTC operational, load etc. Therefore, the same shall be as per OLTC supplier. Also, we have supplied ABB/ Hitachi, Sweden OLTC in many NEA projects.</p>	Shall be subject to approval at design stage.

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		Please confirm your acceptance.	
23	VII-5 Technical Specifications clause no., 5.2.2.12	The regulators /AVR shall be installed in RTCC (in control room) against dedicated AVR cabinets installed inside the control equipment room.	The AVRS shall be installed in dedicated control panels which shall be located in the control equipment room, as specified.
24	VII-5 Technical Specifications clause no., 5.2.2.16 VII-5, 5.2.2.23	<p>We understand as per data sheet clause 6.1.3.21.2, 6.1.4.20.2, and 6.1.2.21.2 following are not required/ Not applicable for 63 MVA, 30 MVA and 8 MVA.</p> <p>➤ Transformer condition monitoring & as described in more detail below and defined in the Technical Data Sheets, including:</p> <ul style="list-style-type: none"> ▪ Top Oil and winding temperatures (FO) ▪ DGA (>3 gases) and moisture in oil ▪ ambient temperature ▪ HV and MV windings current ▪ Calculations: Winding hot spot, bubbling temperature, ageing rate, water content in winding paper insulation, cooling system efficiency. ▪ PD measurements for Bushing/ Transformer <p>Please confirm our understanding is correct.</p>	Confirmed, condition monitoring is not required, for 63 MVA,30 MVA and 8 MVA transformers, as clearly indicated in VII-8 Technical Data Sheets clause 6.1.3.21.2, 6.1.4.20.2, 6.1.2.21.2
25	VII-5 Technical Specifications clause no., 5.2.2.21	<p>Oil level indicators shall be of magnetic type only & without any separate sensor and indicating unit.</p> <p>Please confirm</p>	Confirmed

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26	VII-5 Technical Specifications clause no., 5.2.2.22	<p>FOS probe & channel details required</p> <p>FOS type test report as per supplier shall be provided during detail engineering stage as per previously executed NEA orders.</p> <p>Please confirm your acceptance.</p>	Clarification request is not clear. The published bidding document does not include any requirements for FOS in VII-5, 5.2.2.22.
27	VII-5 Technical Specifications clause no., 5.2.2.27/ QR requirements	<p><i>"Ability to withstand the dynamic effects of short circuit the Bidder/Contractor shall submit a proof that the sourcing transformer factory has already successfully demonstrated the same by test for at least one similar transformer"</i></p> <p>We will perform design review of the offered transformer as per " IEC60076-5 A.3.3.3 Design review by check against manufacturer's design rules for short circuit strength".</p> <p>We will not prove Dynamic Short Circuit similarity of offered transformer with existing short circuit tested (with reference) transformer. We confirmed to prove ability to withstand dynamic short circuit capability of transformer as per IEC 60076-5 calculations during detail engineering stage. We will submit higher rating (MVA and kV) Short Circuit Test report of Transformer. Reference type tests report (except Dynamic Short Circuit Test) of similar or higher rating transformer shall be submitted for tests conducted at our own laboratory (NABL Accredited) witnessed by any of our customer. If required, we are ready to conduct complete type tests (except dynamic short circuit test) on offered transformer (one number each type) at our own test laboratory in presence of NEA or their consultant. We are not offering Dynamic Short Circuit Test on offered Transformer.</p> <p>Please confirm your acceptance.</p>	The requirement of the specification shall be followed.

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28	VII-5 Technical Specifications clause no., 5.2.2.27	No-load loss and no-load current test will be based on IEC 60076 for 90% to 110% voltage Please confirm.	IEC 60076-1 shall be applied.
29	VII-5 Technical Specifications clause no. 6 Electrical Cubicles/Panels 6.3.2	For Transformer marshalling box and RTCC seismic withstand capability is not considered / applicable. And no type test report is available for such test. We will offer RTCC & marshalling box as per NEA previously executed orders Please confirm.	The requirement of the specification shall be followed.
30	Constant ohmic type requirements	Many NEA projects have constant ohmic type impedance requirements however in this specification it is not required for power Transformers. Please re-confirm.	Shall be decided during design stage
31	Digital RTCC	Many NEA projects have Digital RTCC requirements however in this specification it is not mentioned and not required for power Transformers. Please re-confirm.	Requirements for RTCC are defined in Part II, Section VII-1, Project Description and Scop of Works ("automatic voltage regulator") and VII-5, Technical specification ("automatic voltage regulator")
32		<ul style="list-style-type: none"> a) <i>Online Dissolved Gas (Multi-gas) and Moisture Analyzer</i> b) <i>On-line insulating oil drying system (Cartridge type)</i> c) <i>Digital RTCC panel</i> d) <i>oil storage tank</i> e) <i>Online dissolved Hydrogen and Moisture Measuring Equipment</i> f) <i>Nitrogen Injection Type Fire Prevention & Extinguishing System</i> g) <i>Managed Ethernet switch, LIU patch cords etc.</i> 	<p>The request for clarification is not clear. The requirements of the specification shall be followed.</p> <p>Online transformer condition monitoring system in accordance with the requirements of VII- 5 Clause 5.2.2.22 is to be provided for the 220/132 kV autotransformers, as clearly specified in VII-8 / item 6.1.3.21.2.</p>

No	Reference	Clarification Request	Response
		<p>h) Test Kit i) BDV Kit (if specified in BPS) as per Annexure-H of specification j) Portable DGA Kit k) Oil Sampling Bottle l) Oil Syringe m) Hand tools"</p> <p>We understand for Power Transformer except FOS no special accessories, DGA, NIFPES are required -Please confirm</p>	<p>Requirement for FOS is not included in the published bidding document</p>
33		<p><i>Transformer Component</i></p> <p>Since any make list for transformer is not available, hence all component of Transformer shall be as per standard practices of Transformer manufacturer.</p> <p>Please confirm the same.</p>	<p>Please refer to Part I Section III Item 2.1c, bidder may nominate up to three alternative manufacturers.</p>
34	VII-9 Annex D5-3 Lekhnath Substation Extension Layout	<p>Bidder understands that any space allocation for 4 Nos future line (CSE, LA CVT etc) including any 220 kV Cable trench requirement for outgoing future line at Lekhnath site including any space provision are not part of present scope of work. During detailed engineering stage any additional space for future requirements shall be provided by the customer.</p> <p>Please confirm our understanding is correct.</p>	<p>Space must be provided in the GIS building for 4 Nos future lines, as indicated in Annex D5-3: This must include space provision to enable later installation of future GIB or cable for the future lines.</p>

No	Reference	Clarification Request	Response
35	VII-9 Annex D5-3 Lekhnath Substation Extension Layout	<p>For tertiary arrangement for 33kV level at 105MVA Transformer, bidder understand that the delta formation can also be acceptable through MV cable and a suitable jumper interconnection and change over arrangement shall be provided to accommodate seventh spare transformer in case of failure of any other transformer.</p> <p>Please confirm our understanding is correct.</p>	Shall be subject to approval at design stage.
36	Data Sheet/ Specification	<p>Capacitance value (pF) is not mentioned in Technical Data sheet or in specification.</p> <p>Bidder request to provide the Capacitance value (pF) according to line length requirement for both voltage level (220kV and 132kV)</p>	Shall be subject to approval at design stage.
37	TDS Earthing and lightning protection	<p>As per Data sheet stranded copper conductor has to be used for Earthing works. Bidder understands that main grid conductor will be hard drawn copper conductor while riser and other equipment connection through soft drawn/ flexible stranded copper conductor.</p> <p>Please confirm our understanding is correct.</p>	Shall be subject to approval at design stage.
38	TDS Earthing and lightning protection	<p>In Nepal import of any Exothermic material is not possible for Substation construction. Only Government Authorised body can procure the same directly. Bidder have bitter experience in previous NEA Nepal projects and not able to procure any exothermic materials.</p> <p>Bidder request to provide acceptance of Copper Earthing connection with clamps and Nut bolts.</p>	Shall be subject to approval at design stage.

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39	VII-9 Annex D5-3 Lekhnath Substation Extension Layout	For tertiary arrangement we understand that the delta formation can also be acceptable through MV cable. a suitable jumping and change over arrangement shall be provided to accommodate seventh spare transformer in case of failure of any one transformer.	See item 35 above.
40	Data Sheet	Minimum Unified Specific Creepage Distance (USCD) - 43.3 mm/kV. We understand that the site requirement creepage should be 25mm/kV Specific Creepage Distance (SCD), Please confirm.	Confirmed, 43.3 mm/kV (USCD) is equivalent to 25 mm/kV SCD.
41	Technical Data Sheet	Please provide format of technical data sheet for 33kV post insulator.	Shall be subject to approval at design stage.
42	Part 1 Section IV. Bidding Forms Schedule I Price Schedule line item 1.1.1.5	We understand that bidder has to consider 6 nos. Capacitance Voltage Transformer as per Technical Data sheet for 132kV AIS extension bays at Lekhnath, however in the price schedule 6 Nos 132kV Voltage transformers mentioned. Please confirm our understanding is correct.	Capacitive voltage transformers, as specified in the technical data sheet shall be provided and shall be quoted in the Price Schedule line item 1.1.1.5.
43	Part 1 Section IV. Bidding Forms Schedule I Price Schedule line item 1.1.1.5	In case as per price schedule 132kV Voltage Transformer is required for 132kV AIS bays at Lekhnath then please provide format of technical data sheet for 132kV Voltage Transformer.	See item 42 above.

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44	220/132/33kV transformer	<p>1. Bidder request to provide active loading at tertiary end of the 105MVA transformer.</p> <p>2. Bidder understands that it will be open delta, therefore we have to provide provision of delta formation and the connected to 33kV Switchgear accordingly.</p> <p>Request to provide point wise reply.</p>	<p>1. It is not clear what is meant with "active loading" The power rating of the tertiary winding shall be as defined in VII-8, Item 6.1.1.4. The tertiary winding supplies the station auxiliaries, as indicated in VII-9 Annex D5-1. The actual loading is to be determined by the Bidder / Contractor.</p> <p>The 220/132/33kV transformer is configure as a three phase bank of single phase transformers, the windings need to be interconnected externally.</p>
45	VII-1 Project Description and Scope of Works 3.2.1 132 kV AIS Extension	<p>Bidder understands that existing Earth Grid is hard drawn Copper conductor at 132kV Existing AIS substation.</p> <p>Please provide existing Grid Size and copper conductor size of existing Earth mat withing 132kV AIS Substation at Lekhnath so that bidder will interconnect in existing grid.</p>	Details shall be elaborated by the Contractor in design stage.
46	VII-8 Technical Data Sheets 8.1.15	<p>As per data sheet buried depth of earthing conductor given min. 0.8mtr below the ground.</p> <p>Bidder request to accept min 0.6M from FGL (mother soil) as per IEC calculation.</p>	Shall be subject to approval at design stage.
47	Illumination at approach Road	<p>Bidders understand that as pe scope of work Illumination is applicable with in the Fencing area of 220kV Substation at both sites.</p> <p>Any Illumination at approach road area is not part of bidder scope.</p> <p>Please confirm our understanding is correct.</p>	For Damauli substation the illumination of the <u>main access road</u> (as indicated in VII-9 Annexes Annex D5-24) is to be included, as defined in VII-5 Technical Specification, Clause 15.4.1 with illumination levels as defined in Clause 15.4.2.

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48	Illumination at 132kV existing AIS yard. Lekhnath	Bidders understand that shifting of LM tower is in present scope at 132kV AIS Area. Hence, existing Illumination shall be used after re-erection of LM. Hence there is no new supply of Illumination fixture is part of present scope for both Lighting Mast. Please confirm our understanding is correct.	Existing LM tower of the 132 kV switchgear in the area is to be relocated and to be re-integrated into the existing system. No additional fixtures are required, but all material and services required for relocation and re-establish function must be included.
49	VII-8 Technical Data Sheets 6.2.1.3.2 6.2.2.3.2	Bidder request to re-confirm that the value for rated lightning impulse withstand voltage shall 170kVP for 1250KVA Auxiliary Transformer and 630kVA Earthing Auxiliary (Zigzag) Transformer	Confirmed
50	VII-8 Technical Data Sheets 6.1.1.5.8 And 6.2.2.3.2	The value mentioned in data sheet clause no. 6.1.1.5.8 for rated lightning impulse withstand voltage is 250kVP 105 MVA Auto Transformer, however in data sheet cluse no. 6.2.2.3.2 is 170kVP for 630kVA Earthing Auxiliary (Zigzag) Transformer Please clarify the value of kVP for 630kVA Earthing Auxiliary (Zigzag) Transformer, if lightning impulse withstand voltage will be same or as per data sheet only.	Rated lightning impulse withstand voltage for Earthing Auxiliary (Zigzag) Transformer shall be as defined in VII-8 Technical Data Sheets VII- 8, Item 6.2.2.3.2.
51	Auto / Power Transformer 220kV and 132kV Terminal points	Bidder understands that interconnection between GIS to Transformer will be via SF6 to Air Bushing and Air to Oil at transformer end. Please confirm our understanding is correct.	Confirmed
52	Transformer transport	After Route Survey we observed that at 2-3 location Bypass arrangement, Civil works will be required on exiting River crossing for Transformer movement. For information purpose, 2 nos. foundations of one RCC Bridge are cracked. And at another location due to land slide Double girder RCC Bride are not in good shape. Also there may be transportation height limitation for transformers.	Transport route survey is not available, to be conducted by the Bidder. Any measure/cost related to transport of goods/equipment to site shall be included in the Bid and will be under the responsibility of the Contractor.

No	Reference	Clarification Request	Response
		Bidder request to share the route survey report, NEA has conducted for this project for reference purpose.	
53	Tree cutting, Vegetation and Land Clearance	Bidder understands that all permissions for tree cutting and vegetation e.g. forest clearance, local authority approval and any other statutory approvals etc. shall be in scope of customer. Please confirm.	Please refer to clarification Response No. 2, Item 48.
54	Material stored at Lekhnath Site	<p>During Site visit bidder observe that there are many materials stored at Lekhnath site. E.g. Conductor, cable drums. Structure, Poles and other scrap material etc. kept in open land and old store room (if any).</p> <p>The relocation, shifting, handling and storage of above items are not part of scope of this contract. And NEA will hand over encumbrance free site before commencement of contract.</p> <p>Please confirm our understanding is correct.</p>	<p>Clearing the construction site is Contractor's responsibility, as defined in VII-6, Clause 2.4.2.</p> <p>In Lekhnath Substation the existing storehouse shall be demolished and removed by the Contractor.</p> <p>Please refer to VII-9 Annex D5-3 (Notes) and Schedule IV, Item 1.19.1.2.</p>
55	DC Distribution Board in existing 132kV control room	DC DB within existing 132kV control room will be wall mounted. Please confirm.	Shall be subject to approval at design stage.
56	New Control panel for 2 nos. new 132kV AIS	Control & Protection panel for 2 nos. new 132kV AIS will be installed in 220kV Control room building. Please confirm.	The Control & Protection panel for 2 nos. new 132kV AIS shall be installed in the existing 132 kV building, as described in VII-1, Clause 3.2.9 / 3.2.11.2.

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57	Existing Substation Automation System in existing 132kV control room	<p>During visit bidder observed that the Substation Automation System for existing 132kV control room is not supplied and commission so far.</p> <p>Please confirm the makes and model for existing Automation system and clarify integration scope (if any)</p>	Please refer to VII-1 / 3.2.11.3. Further Details shall be elaborated by the Contractor in design stage.
58	Underground cable in Live condition	Bidder request to confirm there in no underground cable in live condition running where 2 nos. 132kV AIS bays to be constructed with in existing 132kV AIS yard.	Please refer to GCC Clause 4.10 (Site Data).
59	A2 Structure	Bidder request to confirm during shifting of LM tower, in case relocation of 11kV / 33kV A2 structure require which exist near the fence area will be NEA scope of work.	Any works that may be required for extension of the 132 kV switchyard shall be included in Contractor's scope.
60	Old Transformer / Scrap material within 132kV AIS yard.	<p>The relocation, shifting, handling and storage of any Old Transformer / Scrap material kept within 132kV AIS yard are not part of scope of this contract. And NEA will hand over encumbrance free site before commencement of contract.</p> <p>Please confirm our understanding is correct.</p>	See item 54 above.
61	Lekhnath Tower & Gantry	<p>Since space is limited at 132kV AIS yard for 2 bays. Bidder understands that existing 132kV tower is extendable for new 132kV gantry/ tower. Accordingly, no modification is required in existing 132kV Tower.</p> <p>Please confirm our understanding is correct.</p>	See item 58 above.

No	Reference	Clarification Request	Response
62	Transmission Line <ul style="list-style-type: none"> • 220kV site at Lekhnath • 132kV site at Lekhnath (both side) • 220kV site at Damauli 132kV site at Damauli 	Transmission line Tower and tower accessories including conductor, Insulator, hardware, jumper, clamps outside the substation take off gantry is not part of scope of work. Please confirm our understanding is correct.	Please refer to Part II, VII-1 Project Description and Scope of Works, Clause 4.
63	Damauli Approach Road	During site visit bidder observed that Bridge connecting to Damauli site is at final stage one patch of concrete is pending at present and the same will be completed before commencement of this contract. Please confirm	Confirmed
64	Damauli Approach Road	After the Bridge connecting to Damauli site Approach Road (approx. 30 meters) for MCA Nepal contract has be connected from right side from Holy trees. This straight road will be common for both contracts, and it is not part of this (kFW) contract. However, the access road for kFW funded contract will be constructed left side of the Holy trees. Please confirm.	Please refer to VII-9 Annex D5-24. The routing of the road depicted in D5-24 is indicative and to be further developed by the Contractor subject to approval at design stage.
65	Damauli Approach Road	<ol style="list-style-type: none"> 1) Access road for kFW project will be starting from 30 meters from Bridge (up to 30 Mtrs common for both contract in not part of kFW contract). 2) After 150 meters straight from bridge side the access road will turned right to the kFW site. 	<ol style="list-style-type: none"> 1) See item 64 above. 2) See item 64 above. 3) Confirmed

№	Reference	Clarification Request	Response
		<p>3) This access road of kFW contract will not connect the exiting NEA Residential building.</p> <p>Please confirm.</p>	
66	Damauli Natural Drain beside the Residential Building	Bidder observes that a natural water flow (natural drain) is running through the Damauli site. Please confirm the drain construction, diversion, protection etc are not part of the scope.	Not confirmed. All site preparation and drainage works are part of the scope. Bidder may refer to VII-1, Clause 3.4.6.1 Site Development Works
67	Damauli Domestic - 220V AC line	Bidder observes that 220V AC Line / Poles have been newly installed. However, during execution there is possibility to relocation of some of poles and line and the same is not in bidder scope of work. Please confirm.	In case the subject LV line will constitute obstruction to construction works, the Contractor shall be responsible for any measures required to carry out the Works (e.g. temporary lifting, diversion, etc.), in coordination with NEA, subject to approval.
68	VII-9 Annex D5-22 3 Project Phasing Damauli Boundary Features and Project Phasing Figure 3-1 - Phase 1 main works	<p>1) Bidder understands that the earth retaining structure and slope protection work at the hill side (i.e. External Drainage collector No. 1 and Permanent Access Road) is not in the bidder scope. Please confirm our understanding is correct.</p> <p>2) If the earth retaining structure and slope protection works as mentioned above is part of scope of work of this contract, then please clarify the line item in the price schedule bidder has to consider the same scope.</p> <p>Please provide Point wise reply.</p>	<p>1) Not confirmed permanent access road is part of scope as described in VII-1.</p> <p>Please refer to Part 1, Schedule No. IV, line items under sub heading Item 2.20.1.</p>
69	VII-9 Annex D5-22 3 Project Phasing	Bidder understands that any work related to protection (e.g. earth / dust etc.) of existing NEA building or existing store etc. are not part of scope of work. Please confirm	Please refer to Part 3 Conditions of Contract (CC) and Contract Forms, Section VIII General Conditions (GC) (FIDIC), Clause 4.8.

№	Reference	Clarification Request	Response
70	Part 1 Section II Bid Data Sheet (BDS) BDS- ITB- 19.1	Presently the market price level is volatile & unpredictable, and it is very difficult to maintain the bid validity for long period as per bid requirement. Here, bidder request to reduce the bid validity period for between 90-120 days.	The request is not a request for clarification pursuant to Part I Bidding Procedures, Section I. Instructions to Bidders, Item 7. It is effectively a request of amendment to the Bidding Documents and as such it cannot be entertained.