# Lekhnath Damauli 220 kV Transmission Line Project Package A: OHL BMZ201667773/KfW508597

List of Queries and Clarifications
Clarifications № A\_2
November 14, 2022

Nº	Reference	Query	Clarification
1	Part I Section IV. Bidding Forms Schedules of Rates and Prices	Kindly refer item 1.10 (Tower Earthing).  Requesting you to please provide Type of required Earthing along with Detail  Bill of Material / Bill of Quantity & other technical details for the same.	Please refer to document VII-4, clause 7.3 Earthing system section, for earthing materials and design requirements.
	Schedule I: Item- 1.10, 2.9 & 3.7		
2	Part I Section IV. Bidding Forms Schedules of Rates and Prices Schedule I: Item- 3.2	Kindly refer Item 3.2, under which item 2.2.5 is given. We understand that the given item 2.2.5 is merely a misprint & the actual item no. should be 3.2.5. Kindly Confirm, if our understanding is correct.	Understanding is correct, it is a typo, it should read 3.2.5  Please see updated Price Schedules.
3	Part I Section IV. Bidding Forms Schedules of Rates and Prices Schedule I & II: Item- 1.7, 2.6, 3.4 & 4.4	Please Refer Schedule I, Item no. 1.7 (Insulator Strings): We have observed that required size (KN) and quantity of Composite Long Rod Insulator has not been provided in both Schedule I & II. Hence, we request you to kindly provide following details:  1. Required Size Bill of Quantity of Composite Long Rod Insulator per string.  2. Electro Mechanical Failing Load (KN) of required Insulator.  3. Detailed Technical Specifications for required Insulator.	Please refer to document VII-4, 7.6 Insulators and insulator sets section, and VII-6, 4.7 and to document VII-6, 4.7 Insulator sets, for materials and design requirements.  Bidders are required to fill in Technical Data Sheets with the offered performance characteristics.

Nº	Reference	Query	Clarification
4	Part I	Please Refer Schedule IV, Item no. 2.2.1.4 (Soil type 3 (dry)): We have observed	Understanding is correct, it is a typo.
	Section IV. Bidding	that the provided Quantity is written as 'g'.	Quantity for item Sch. IV, 2.2.1.4 t should read 3
	Forms	However, we understand that it is merely a misprint & the original quantity	
	Schedules of Rates and	should be '3'.	Please see updated Price Schedules.
	Prices	Kindly confirm if our understanding is correct.	
	Schedule IV		
5	Part I	We understand that we have to supply only one OPGW per rout km for all	Please adhere to the project scope of works and
	Section IV. Bidding	Transmission Line under this package.	technical requirements, in particular to the
	Forms	Kindly Confirm.	description of the OPGW that is required for each
	Schedules of Rates and		section of the OHL works
	Prices		
	Schedule I: Item- 1.2.3,		
	2.2.2 & 3.2.3		
6	Part I	We understand that we have to supply only 5 km OPGW instead of 5 rout km.	Understanding is correct, it is a typo.
	Section IV. Bidding	Kindly Confirm.	Unit for items Sch. II, 4.2.1 to 4.2.4 should read "km"
	Forms		
	Schedules of Rates and		Please see updated Price Schedules.
	Prices		
	Schedule I: Item- 4.2.4		

Nº	Reference	Query	Clarification
7	Part I Section IV. Bidding FormsSchedules of Rates and PricesSchedule I: Item- 2.2.2 and Item- 3.2.3 & Section-VII-6: Technical Data SheetS.No. 4.6: Optical fiber count and grouping	As per Schedule I: Item- 2.2.2, we have to supply OPGW 48 FIBRES (equivalent to 93-A20SA) in 220kV TANAHU- DAMAULI LILO.and as per Item- 3.2.3, we have to supply OPGW 96 FIBRES (equivalent to 66-A20SA) in .132kV BHARATPUR-DAMAULI LILO.  However, as per Section VII-6: Technical Data Sheet, S.No. 4.6: Optical fiber count and grouping, it is mention here that, we have to provide Technical details of 24 fibers type ITU-T G.652D for both (S.No. 4.6.2) 220kV TANAHU-DAMAULI LILO & (S.No. 4.6.3) 132kV BHARATPUR-DAMAULI LILO, as shown below:Kindly clarify the following points:  1. Which configuration of OPGW needs to be adopted for Lines 220kV TANAHU-DAMAULI LILO & 132kV BHARATPUR-DAMAULI LILO. If we need to adopt OPGW 96 Fibres (equivalent to 66-A20SA), then we request you to kindly provide Technical Data Sheet for the same.  2. As per Scope of Work, BHARATPUR-DAMAULI LILO is 132kV capacity, but in the above table, its capacity is 220kV.  46.	1. Typo error on Technical Data Sheets: - item 4.6.2: 220 kV Tanahu-Damauli (Tanahu LI-LO): OPGW equipped with 48 fibres. Note that fibre type shall be compatible with 220 kV Tanahu-Bharatpur line  - item 4.6.3: 132 kV Damauli-Bharatpur LILO: OPGW equipped with 96 fibres.  At this stage, Bidder shall propose an OPGW which its mechanical performance is compatible with 132 kV system parameters and ACSR Wolf conductor, approx. equivalent to conventional earthwire 66-A20SA, as requested under Sch. I, item 3.2.3.  Refer to EN 50812 for 66-A20SA conductor details
8	Part I Section IV. Bidding Forms Form of Bid Security	Please refer, Form of Bid Security, under which it is written that "18 Pursuant to ITB Clause 19.3 the guarantee must be valid for at least 42 days beyond the bid validity."  However, above mentioned ITB Clause 19.3 is not correct & it should be replaced with ITB Clause 20.3.  Requesting you to kindly do the needful.	As stated in 20.3 'The Bid Security shall be valid for forty-two (42) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 19.2'
9	Part I	Kindly confirm, we need to submit only Technical Bid to Employer's Consultant / Engineer (Fictner, Germany) & not the Price Bid.	As per stated in Bid Data Sheet ITB 23.1 complete package shall be submitted

Nº	Reference	Query	Clarification
10	Part I	Kindly confirm, submitting Softcopy of Technical Bid to Employer's Consultant / Engineer (Fichtner, Germany) via. provided Engineer's E-Mail Id in the bid documents (Electronic mail address: pierernesto.gatti@fichtner.de) will be sufficient.	Additional one (1) copy of the Bid shall be submitted at the following address:
		If not, can we submit hardcopy of the Technical Bid documents to Employer's Consultant / Engineer (Fichtner, Germany), directly via. post / courier to the Engineer's address or we need to submit the same in Person.	Fichtner GmbH & Co. KG  Attention: Dr. Pierernesto Gatti  Address: Sarweystrasse 3  City: Stuttgart
			ZIP Code: 70191 Country: Germany
11	Part I Invitation for Bids(Page- 7 of 139)&Section II. Bid Data SheetITB 23.1	We understand that, for Hardcopy Submission, we have to submit One Original + Two Copies of the Bid to Employer's (NEA) address & One Copy of only Technical Bid (Without Price Bid) to the Employer's Consultant / Engineer (Fictner, Germany) address.Kindly Confirm, if our understanding is correct.	Please follow as stated in ITB 23.1. Complete Bid shall be submitted
12	Part I Invitation for Bids (Page- 7 of 139) & Section II. Bid Data Sheet ITB 23.1	Kindly confirm, the deadline for Bid submission i.e. 14th November 2022 is applicable for submission to Employer's (NEA) address only. Kindly Confirm.  We request you to kindly clarify the dead line for submission of Technical Bid to Employer's Consultant / Engineer (Fichtner, Germany) address, after bid submission to Employer (NEA).	For the Bid submission to the Employer, the Deadline for Submission of Bids is revised as per Amendment No A_1.  For the Bid submission to Fichtner, the receiving date is nonbinding. However, it shall not be later than 10 days from the Deadline for Submission of Bids.  The above submission shall comprise both Technical and Commercial Bids.

Nº	Reference	Query	Clarification
13	Part I Invitation for Bids (Page- 5 of 139)	Kindly refer Invitation of Bid in which it is stated that: "The NEPAL Electricity Authority (NEA) has received financing from KfW toward the cost of the Lekhnath Damauli 220 kV Transmission Line Project and intends to apply part of the proceeds toward payments under the contract for Package A: 220 kV D/C Transmission Line from Substation Lekhnath - SS Damauli.  Remaining part of the costs shall be covered by NEA. In addition, a Letter of Credit issued by NEA shall be provided for the 70% of the Price Schedule I to the successful bidder when the contract is awarded."  We kindly request you to confirm / provide following details related to payment procedure.  a. What portion of contract price will be paid by funding Agency i.e. KfW? Please Confirm.  b. What portion of contract price will be paid by Employer i.e. NEA? Please Confirm.	PART III, Section IX., Part A Particular Conditions (PC) Contract Data, sub-clause 1.1.4.13 "Grant" shall be as follows:  KfW Development Bank has given the grant of 9,500,000 EUR to Nepal Electricity Authority for Lekhnath Damauli 220 kV Transmission Line Project (for Lot A).
14	Part I Section III: Evaluation & Qualification Criteria Cl 4.2 (a) Specific Construction & Contract Management Experience	It is mention here that "one of the above mentioned contracts or other contracts at 132 kV or 220kV level shall be carried out in Nepal and has been successfully completed of minimum value USD 12,000,000.00".  We understand that, since Lekhnath Damauli 220 kV Transmission Line Project: Package A is a Transmission line Project, bidder need to demonstrate only Transmission Line Work (12 Mn. USD) executed in Nepal. Kindly confirm.	"one of the above-mentioned contracts or other contracts at 132 kV or 220kV level shall be carried out in Nepal and has been successfully / substantially completed of minimum value USD 12,000,000.00".  Evidence shall be provided in form of Employer's Certificates (defining performed works, etc. and confirming substantial completion).
15	Part I Section II. Bid Data Sheet	Please refer ITB 11.1 (a) (vi): Pre-Bid meeting / Site visit certificate issued by the Employer.  Kindly confirm, when and which kind of certificate will be issued by employer (NEA).	MoM of Pre-meeting with signed list of participants constitute the Pre-Bid meeting / Site visit certificate.
16	Part I Section III: Evaluation & Qualification Criteria CI 2. (d) Personnel Capabilities	It is mention here that, contractor have to propose <b>Telecommunication Specialist</b> [Item No. 7], Since Package A is a Transmission line Project, & Telecommunication Specialist are mostly required for Substation projects, Therefore, we request you to kindly remove this criteria.	The role is needed for the installation and commissioning of the overhead line fibre optic telecommunication link.

Nº	Reference	Query	Clarification
17	Part I Section IV. Bidding FormsPrice Adjustments for Tower material and Conductors	It is mention here that, contractor have to indicate the base date indices in its bid. We request you to kindly allow us to propose IEEMA indices (Indian Origin) for Tower Material (Construction) steel, since it is more realistic / relavant / majorly adopted by indian tower manufacturers.  Item Source of Indices Used Base Date Indices  Tower Material and Conductor:  Construction steel: London Metal Exchange CFR India (official rate)	Please see clarification No. 142 below.
18	Part I Section IV. Bidding Forms Price Adjustments for Tower material and Conductors	We understand that Bidder shall also allowed to propose Tower on FIRM basis & Conductor on VARIABLE basis. Kindly Confirm.	Please follow the Bidding Document.
19	Part I & III Section IV. Bidding Forms Price Adjustments for Tower material and Conductors (Page no. 126 of 139) & Sub-Cl. 13.8: Adjustments for Changes in Cost (Page no. 40/72)	As per Package A: OHL - Part I, Section IV. Bidding Forms Price Adjustments for Tower material and Conductors (Page no. 126 of 139), it is mention that: "The base date shall be the date twenty-one (21) days prior to the Bid closing date.  The date of adjustment shall be the mid-point (365 days) of the project." However, as per Package A: OHL - Part III, Sub-Cl. 13.8: Adjustments for Changes in Cost (Page no. 40/72), it stated as: "The base date shall be the date thirty (30) days prior to the Bid closing date. The date of adjustment shall be the mid-point (180 days) of the period of manufacture or installation of component or Plant." Kindly Confirm, from above, which conditions we have to follow for Price adjustment.	The base date shall be the date thirty (30) days prior to the Bid closing date.  The date of adjustment shall be the mid-point (180 days) of the period of manufacture or installation of component or Plant.

Nº	Reference	Query	Clarification
20	Part II & EN 50341-2012 Section VII-3, Cl. 6.7.2, Section VII-4, Table No. 6-8 (Partial load factors) & EN 50341-2012, Cl. 7.3.9	As per our understanding, Test loads shall be design loads multiply by corresponding partial safety factors and material factors.  Please Confirm Following points:  a) We have to consider partial safety factors = partial load factors as per Section VII-4, table no. 6.8.  b) We have to consider partial material factors = 1.1 only as per Section VII-4, table no. 6.8  Also, as per EN 50341-2012, cl. no. 7.3.9 Design assisted by testing.  F test R > 1.05 * FRD i.e. (Test load > 1.05 * Design load for ultimate limit state)  Please confirm that effect of 1.05 is taken care when we increased loads as specified in tender specification. (i.e. No need to further increase design load	Understanding is correct, tower test loads are design loads, which are actual climatic loads multiplied by partial load factor and multiplied then by material factors.  For test loads it is not necessary to apply an additional load factor of 1.05.  Please see updated Price Schedules, in particular Schedule III, items 1.5.1 Tower Type tests
21	Part II Section VII-3, Cl. 6.7.2 & Section VII-4, Table No. 6-8 (Partial load factors)	by 1.05 factor)  For six-circuit tower, numbers of loading points are 20*3 = 60 & it is not possible to conduct tower testing. So, we recommend to increase design load factor by 1.1 to avoid testing.  Please confirm, if this is acceptable by Employer.	In case tower cannot be tested, please clearly state that in the Bid and, as supporting documentation, please do attach to the Bid all technical details of the proposed tower testing station so to confirm impossibility of carrying out 6T tower type test.  In case tower designs for which test cannot/will not be performed, please refer to EN 50341-1:2012, Subsection J.4, value of imperfection factor α shall be
22	Part II Section VII-3, Cl. 6.2.1.4	As per Clause 6.2.1.4, "The crossarms of tension towers shall be designed to allow the two-point attachment of double insulator strings." We have executed up to 765 kV in India & up to 220 kV in Nepal with single point attachment. Kindly allow bidder to use single point attachment for double insulator strings.	0.49, corresponding to the buckling curve c.  Please see also item No. 20 above  Please adhere to the project scope of works and technical requirements.  Refer to VII-4, 7.6.2 Insulator sets section for further requirements.

Nº	Reference	Query	Clarification
23	Part II Section VII-4, Cl. 7.1.6	As per Cl. 7.1.6, Tower design (detailing) shall include two versions for each tower type:  • Standard version to be used in all locations accessible by heavy transport vehicles  • Alternative version with reduced length of heavy members (e.g., legs, long bracing members) and additional connections suitable for animal transport. As supply & erection are in contractor's scope, Can we prepare only one version of tower drawings, which is suitable to project terrain condition, Kindly Confirm.	Please adhere to the project scope of works and technical requirements.  However, ultimately it is Contractor's responsibility and duty to the delivery to site of all materials and equipment and is free to choose most suitable means of transportation that complies with project specification and requirements, in particular HSE and environmental.  It will remain part of Contractor's scope of works and could be requested if found it to be required.
24	Part II Section VII-4, Cl. 6.4.2.1	As per cl. no. 6.4.2.1, Wind loads, "Appropriate terrain category as per Table 4.1 of EN 50341-1 shall be determined based on the observations of detailed line survey."  We request you to please provide terrain category to calculate wind force according to the table 4.1 of EN 50341-1.  Wind pressure variation in category 2 & 3 is approx. 20%, kindy clarify the terrain category to keep all bidder on same platform.	In response to the query, please use terrain category III.  However, if during detailed engineering phase part of the OHTL routes are found to be crossing through a terrain of different category tower spotting parameters, i.e.: wind span, angle of deviation, etc. shall be adjusted to compensate the difference in climatic loadings.
25	Part II Section VII-4, Cl. 6.2.1.1	Dpp & Del values are furnished in cl. No. 6.2.1.1. Please confirm these values are include altitude effect of 1500 m as specified in section VII-4, cl. no. 6.	Internal clearances values are already adjusted with altitude
26	Part II Section VII-4, Cl. 7.1.6 & Section VII-3, Cl. 6.5.1	As per Section VII-4, cl. no. 7.1.6, "Each tower shall be provided with step bolts of an approved type on one leg spaced" whereas per Section VII-3, cl. no. 6.5.1, "Each tower shall be provided with step bolts of an approved type on two diagonally opposite legs."  Please confirm that step bolts required on two diagonally opposite legs.	Please follow clause on doc. VII-4, Particular technical requirements, clause 7.1.6 Materials and furniture
27	Part II	Test Tower height not mentioned in specification. So, We understand that bidder have to test full height tower i.e basic tower + maximum body extension + maximum leg extension. Kindly Confirm.	Please adhere to the project scope of works and technical requirements, in particular to document VII-4, section 7.1.8 Tower type tests, last paragraph.

Nº	Reference	Query	Clarification
28	Part II	For calculating wire height for wind load calculation, please confirm that we have to consider maximum tower height i.e. basic tower + maximum body extension of 12m + maximum leg extension of 6m.	Contractor may use either corresponding wire height for each tower configuration or maximum height for all tower configurations.  Approach followed by the Bidder shall be then adopted during detailed engineering stage, unless otherwise instructed by Employer/Engineer.
29	Part II	Please provide the air density to calculate wind pressure or kindly confirm, if we can take the air density from table 4.2 of BSEN 50341-1:2012 as per the temperature and altitude given in specification.	Air density can be adjusted with altitude above 1,000 m amsl.
30	Part II Section VII-4, Cl. 6.3.2 & Cl. 6.4.2.1	As per cl. no. 6.3.2, ultimate limit state is define at minimum temperature and same is 0°C as per table no. 6-3 (Temperature limits), whereas per VII-4, cl. no. 6.4.2.1, "Conductor temperature corresponding to EDS shall be used for calculation of tension under extreme wind load."  Please clarify, which temperature needs to be considered with extreme wind for tension calculation i.e. 32°C or 0°C.	Conductor ultimate limit state shall be assessed under wind load at minimum temperature, 0°C However, for calculation of loads on tower conductor tension shall be under wind load at 32°C temperature.
31	Part II Section VII-4, Cl. 6.5	As per cl. no. 6.5, "All double circuit towers shall also be verified for condition with single circuit (3 phases) strung on one side of the tower." As towers are to be erected and strung as double circuit tower, then do we required to check for single circuit strung condition? Kindly Confirm.  If yes, Do we need to check it only for normal condition? Kindly Confirm.	Please adhere to the project scope of works and technical requirements. Double circuit towers shall be checked with single circuit strung for "normal working conditions".
32	Part II Section VII-4, Table 6-5 (Load combinations for suspension towers) & Table 6-6 (Load combinations for angle towers)	Please specify wind pressure percentage (i.e. 100 % or less) for calculating SC1 loading case, as specified in VII-4, table 6-5 & 6-6 of specification. As per EN, we may consider it under no wind case also.	Applicable load factors are presented in Table 6-8. There is no wind load reduction.
33	Part II Section VII-4, Table 6-8 (Partial load factors)	Please specify partial load factor for tension tower under load case SC1.	See table 6-8, fourth row, Security Loads (SC1) Load factor in table 6-8, fifth row, is for SC2 load case but applicable for tension tower only

Nº	Reference	Query	Clarification
34	Part II Section VII-4, Table 7-2 (Design span limits)	Please specify broken wire case wind and weight span for tower design.	So called broke wire case corresponds to load case labelled 5a, Security loads: torsional loads.  For non-broken phases, consider min. and max. weight span and wind span.  For broken phase, consider 2/3 of min. and max. weight span and wind span.
35	Part II Section VII-4, Cl. 6.3.2 & Section VII-3, Cl. 9.2	As per Section VII-4, cl. no. 6.3.2, "Tension limit for EDS condition (Initial) shall be set to 22% of the rated strength value."  Also, as per Section VII-3, cl. no. 9.2 "Over tensioning of the conductor shall be made by an allowance in the erection temperature."  We understand that we have to maintain FOS of 100/22 = 4.545, under final after creep condition as per PLS terminology.  It is standard practice that tension limit = 35% of rated strength during stringing activity (Initial condition, over tensioning).  Please confirm that 22% of the rated strength value is not required during stringing activity.	Please adhere to the project scope of works and technical requirements, required tension limit is for the initial condition of the conductor.  Contractor design methodology as well as stringing methodology shall ensure that specified conductor tension is achieved.
36	Part II Section VII-4, Table 7-3 (Generic soil types)	Please confirm that, soil properties provided in Section VII-4, table 7-3 (Generic soil types) is inclusive of all partial safety factor and no further reduction is required for foundation design.	In principle we agree, soil properties are inclusive of the applicable partial material factor.  However, these geotechnical parameters for bidding purposes, Contractor shall perform extensive soil investigation along OHTL route and the outcome of it will form the basis for the final foundation design.
37	Part II Section VII-4, Table 7-3 (Generic soil types)	As per EN M3.1.6, Angle of earth frustum Bd = Bo* Sqrt (b/t), Please confirm that values provided in VII-4, table 7-3 is of Bo and we have to use Bd for calculation of uplift capacity.	Confirmed, values provided in Table 7-3, Frustum angle [°], are β0 as in EN 50341:1-2012, sub-clause M.3.1.6
38	Part II Section VII-4, Cl. 7.2	Please confirm that, we have to consider partial factor of 1.1 while checking uplift capacity of open cast foundation in line with EN50341-1, M3.1.6 requirement.	Confirmed, partial factor of 1.1 is applicable

Nº	Reference	Query	Clarification
39	Part II Section VII-4, Cl. 7.2	Please confirm that, maximum depth for open cast foundation permitted is 3.0 m.	In principle there is not such restriction for open cast foundations.
40	Part II Section VII-4, Cl. 7.2	Please provide minimum factor of safety required under uplift and compression load check for pile design. As per EN values are 1.5 & 1.1 but as per Indian code same are 3.0 & 2.5	Please adhere to the project scope of works and technical requirements, EN norm is applicable as opposed to other standards.
41	Part A - Contract Data & Part B - Specific Provisions	Grant 1.1.4.13 & 14.4 Schedule for Payments  It is mentioned that KfW Development Bank has given the grant of 9,500,000 EUR to Nepal Electricity Authority for Lekhnath Damauli 220 kV Transmission Line Project (for Lot A and Lot B).  It is mentioned as " KfW shall pay the amount certified for each Interim Payment Certificate until KfW's funds dedicated to the interim payment are used. After the complete utilization of these KfW funds, NEA shall pay to the Contractor the amount certified for each Interim Payment Certificate until the 70% of Price Schedule I Plant and Mandatory Spare Parts Supplied from Abroad is reached."  We request you to provide the amount KfW will fund for the Package A. We also request you to provide the source of funds which will be paid through NEA for the balance portion of Package A.	Please see Clarification No. 13 above.
42	Section IV. Bidding Forms & PART 3 – CONDITIONS OF CONTRACT (CC) AND CONTRACT FORMS	Price Adjustment for Tower Materials and Conductors It is mentioned that the base date shall be the date twenty-one (21) days prior to the Bid closing date. In Part B - Specific Provisions. Adjustments for Changes in Cost it is mentioned that the base date shall be the date thirty (30) days prior to the Bid closing date. Please confirm the base date.	Please see comment above

Nº	Reference	Query	Clarification
43	Section IV. Bidding Forms & PART 3 – CONDITIONS OF CONTRACT (CC) AND CONTRACT FORMS	Price Adjustment for Tower Materials and Conductors It is mentioned that the date of adjustment shall be the mid-point (365 days) of the project. In Part B - Specific Provisions. Adjustments for Changes in Cost it is mentioned that the date of adjustment shall be the mid-point (180 days) of the period of manufacture or installation of component or Plant. Please confirm the date of adjustment.	Please see comment above
44	Part 2-VII-3: General Technical Requirements	6.2.1 Electrical clearances Please provide the live metal clearance values to be considered under various swing conditions for suspension tension and terminal towers including the altitude correction factors.	Please refer to document VII-4, Particular Technical Requirements and to document VII-6, Technical Data Sheets
45	Part 2-VII-3: General Technical Requirements,	6.2.1.4 "Redundant members shall be capable of supporting an axial tensile or compressive load of at least 2.5% of the maximum computed compressive load in the supported main member applied perpendicular to the axis of the main member"  Please confirm whether, the 2.5% of the maximum compressive load of the connecting member can be distributed among the transverse and longitudinal sub bracings.	No, you cannot distribute the force in two orthogonal planes, only among the members that exist in the same plane.
46	Part 2-VII-3: General Technical Requirements,	6.5.6 Bird guards "Where spikes are projecting from cross arm contour towards live parts, the tower clearance diagram shall consider their length."  Please confirm whether, the bird guard has to be provided at the cross-arm tips of suspension tension and terminal towers also.  Please share the indicative drawings of the bird guards for needful action.	Requirement is applicable to both type of towers. The actual tower locations that will be equipped with bird repellent system will be identified by Employer/Engineer during detail design stage. Bidders are free to propose a type of bird repellent system that complies with the requirements subject to final approval by Employer/Engineer

Nº	Reference	Query	Clarification
47	Part 2-VII-3: General Technical Requirements,	As per technical specification clause 6.2.1.2 and the technical data sheet there is a variation in the minimum clearance requirement from natural land. Please confirm the same.  6.2.1.2 External clearances Clearances to obstacles shall be as per Table 6-2.  7oble 6-2: External clearances    Description (m)   Residential areas   8.5     Natural land   7.0     Cultivated land   7.5	There is a typo error on VII-6, Technical data sheets, item 2.4.3. Clearances shall be as per Table 6-2, External clearances, in document VII-4, Particular technical requirements. 7.0 m min. vertical clearance is required over natural land.
		2.4.1 Minimum External Clearances  Minimum vertical clearances from the line conductors at most detrimental loading:  2.4.2 Residential Areas m 8.50  2.4.3 Cultivated and natural land m 7.50	
48	Part 2-VII-3: General Technical Requirements,	7.1.3 "Standard tower height (common tower body with body extension ±0 and four ±0 leg extensions) shall be determined considering the maximum conductor sag at maximum temperature corresponding to the nominal span, the suspension insulator string length, and minimum required ground clearance."  Please confirm the minimum ground clearance and sag error requirement inclusive of the altitude factor if any for determining the tower height.	Please refer to document VII-4, Particular Technical Requirements and to document VII-6, Technical Data Sheets. Additionally, see related item above. Altitude correction is not required for the external clearances values provided.  For sag error, please refer to doc. VII-4, Particular Technical requirements, pg. 13, foot note 1: Additional 0.20m shall be considered to account for potential survey and sag errors
49	Part 2-VII-3: General Technical Requirements	Technical data sheet  2.5 Mid-span wire clearances 2.5.1 As per EN 50531-1, Annex F, plus bundle spacing  Understand that the mid span clearance shall be calculated based on EN50341-1 Annex F. Please confirm.	Correct, mid span clearances shall be calculated in accordance with EN 53041-1:2012, Annex F for the tower top geometry design.  Conductor bundle spacing shall be added to the mid span clearance obtained applying Annex F formulae.

Nº	Reference	Query								Clarification
50	Part 2, VII-4: Particular Technical Requirements,	7.1.1 "DB: Light angle and section tension tower applicable for line deviation angles $\alpha = 0^{\circ}$ - $10^{\circ}$ and DC: medium angle tension tower applicable for line deviation angles $\alpha = 10^{\circ}$ - $30^{\circ}$ "  Please note that, there is a deviation in the angle of deviation of light and								For tower design parameters, please refer to values provided in table 7-2 of doc. No. VII-4, and to doc. No. VII-6, Technical Data Sheets.
		medium towers in the technical specification and the technical data sheet. We presume that, the maximum angle of deviation for DB tower shall be 15° and DC tower shall be 30°. Please confirm.						Typo error, at the beginning of sub-section 7.1.1, tower type DB min./max. $\alpha$ angle should read 0-15°; and for tower type DC: 15°-30°.		
51	Part 2, VII-4: Particular Technical	Table 7-1: Ran	_		leg exter	sions				There is a limit on the slopes on which tower can be placed, but no limit on the unequal leg extension combination.
	Requirements,	Tower type Body extensions min / max Step height Leg extensions min/max Step height	DA -6/+12 3m -3/+6.0 1.5m	-6/+9 3m -3/+6.0 1.5m	_				been elaborated	
		design of une		•						

Nº	Reference				(	Query		Clarification	
52	Part 2-VII-3: General	Table 7.2-Design S	oan Lir	nits			Nominal span shall be used for determination of the		
	Technical Requirements	Table 7-2: Design span limits  Tower type	Line Angle (°)	Nominal Span (m)	Wind Span (m)	Weight Span (max/min) (m)	Max. Phase Span (m)		tower standard height.  Tower design shall consider the full range of design
		Normal suspension (DA)	0 - 2	350	450	700/0.7 x wind span	600		span limits, also see Note 1 under Table 7-2 regarding the use of tension towers.
		Light Angle / Section Tower (DB)	0 - 15	350	450	1500/-700	600		Contractor is expected to adhere to span limits and
		Medium Angle Tower (DC)	15 - 30	350	450	1000/-700	600		quote accordingly.
		Heavy Angle Tower (DD)	30 - 60	350	450	2000/-700	600		
		Dead End Tower (DE)	0-45	250	250	700/-300	400		
		Multi-circuit Tower (6T)	0-50	350	350	1500/-700	375		
		Under Crossing Gantry (UCG)	0 - 10	200	200	500/-500	200		
		We understand the	at the	hotton	n atta	chment	wind n	essure and maximum sag	
			-			-	•	e maximum phase span	
		shall be considered				•		·	
				_			-	I span, special tower shall	
		be designed with h				•		.,.,.,	
53	VII-4: Particular	Table 7-3: Generic			•			S	Please refer to item No. 36.
	Technical	Partial material fac		•					
	Requirements,	We understand tha	at the	details	ment	ioned in t	able 7-	3, is inclusive of the	
		Partial material fac	tors sl	nall be a	as pei	r Table 6-	1. for s	oil properties. If not	
		during bidding, the	facto	rs shall	be ap	plied to t	the soil	parameters and design of	
		foundation shall be	done	. Please	e conf	firm.			
54	VII-4: Particular	6.5.2 Material factor	ors						Both partial factors for actions as well as partial
	Technical	Partial material fac	tors sl	nall be a	as pei	r Table 6-	1.		material factors shall be applied, refer to EN 50341-
	Requirements,	The foundation loa	dings	obtaine	ed fro	m tower	analysi	s, shall be exclusive of the	1:2012, Section 3, Basis of design.
		partial load factors	consi	dered ii	n desi	ign of tow	vers.		Foundation loads obtained from tower analysis shall
		Please provide the	partia	l load f	actor	s to be co	nsider	ed in design of	be including partial load factors.
		foundations apart	from t	he mat	erial f	factors fo	r soil ai	nd foundation.	

Nº	Reference	Query	Clarification
55	Part 2-VII-3: General Technical Requirements	Understand that the base widths of the towers can be decided by the contractor based on optimal configuration of towers.  Please confirm.	Please refer to clarification No. 106 for further information regarding allowable tower base width.
56	Part 2-VII-3: General Technical Requirements	Please confirm whether, the line passes through snow zone and whether ice loading to be considered in tower designs.	Please adhere to the project technical requirements, see VII-4 Particular Technical Requirements and VII-6 Technical Data Sheets
57	Part 2-VII-3: General Technical Requirements	Please provide the estimated benching and protection quantity for the entire line.	Please refer to updated Price Schedules for the items that should be quoted.
58	Part 2-VII-4: Particular Technical Requirements	7.1.6-Materials and furniture All load bearing elements (including connection plates) shall be of grade S355J0 as specified by EN 10025-2. Secondary bracing members may be of grade S235J0.    33	Bidder's understanding is correct, both steel quality S355J0 G3/G4 and S235J0 G3/G4 are allowed to be used.  Typo error in items 3.1.1 and 3.1.2 of technical data sheets, data required column should read S355J0 G3/G4 and S235J0 G3/G4
59	Part 2-VII-4: Particular Technical Requirements	7.1.6-Materials and furniture For connections of main load bearing members minimum bolt diameter of 16 mm shall be used. Minimum diameter of 12 mm may be used for secondary bracing connections. Nominal stress area shall be used for calculation of bolt shear capacities. As per clause mentioned, 12mmm bolts can be used for secondary bracings. However, as per Technical data sheet 3.4.4, minimum diameter of bolt is given as 16mm. Please clarify whether 12mm bolts can be provided for secondary bracing members.	Clarification: item 3.4.4 in technical data sheets refers to connections of main loading bearing members only.  Bolts 12 mm in diameter are allowed for secondary bracing connections

Nº	Reference				Quer	Clarification		
60	Part 2-VII-4: Particular Technical Requirements	Value V with EN Clause calculate Please	Wind loads  (b,0=28m/s sha I 50341-1, 4.3.1. Conducto cion of the cond provide the terr cion of wind loa	or temper luctor ten rain facto	ature corr ision unde	esponding er extreme v	See item No. 24 For bidding purposes, orography factor equal to 1 may be used. However, during detailed engineering phase orography shall be taken into account were found to be appropriate.	
61	Part 2-VII-4: Particular Technical Requirements	The soi	ended for Tende	er purpos	es provided in Table 7-3 ed on semi-empirical 3 of EN 50341-1	1. At this stage, assume water level same as ground level. However, during project implementation Contractor shall carry out a detailed geotechnical investigation along the OHTL route to stablish final foundation design parameters.		
		Type 3	Dry  Wet (in presence of subsoil/surface water)  Wet black cotton	≥270 ≥135 ≥135	25 15 0	15 10/15	or design of foundations.	<ul><li>2. Soil of wet black cotton type shall not be used for backfilling</li><li>3. There is no such a limit specified</li></ul>
		2. Pleas	se confirm the d	lensity of	Wet black	cotton soi	or design of foundations.  I for design of foundation.  Boundation shall be 3.50m.	

Nº	Reference	Query	Clarification
62	Part 2-VII-4: Particular Technical Requirements	7.2 Foundations The soil geotechnical parameters for bidding purposes provided in Table 7-3 are intended for Tender purpose only. These are based on semi-empirical geotechnical design model as described in Clause M.3 of EN 50341-1For detailed foundation design, the Contractor shall perform extensive soil investigations as described in Employer's Requirements and provide design calculations based on the obtained information	Please refer to doc. Part I, Bidding Procedures, Preamble / Schedules of Rates and Prices, pg. 123 onward for the available price adjustment mechanisms.
63	Part-2-VII-1: Project Description and Scope of Works	Max. wind speed m/s 50 50  Understand, that max wind speed provided is for information only. The wind loading on the tower shall be decided based on the Cl.6.4.2.1	Understanding of the bidder is correct, value given in doc. No. VII-1 is for information only. Wind speed that shall be used for the calculation of the wind force on the different OHL components is provided in section 6.4.2.1 and in doc. No. VII-6, Technical Data Sheets
64	Part-2-VII-7:Annexes- Annex E Typical foundations	Understand, the type of foundation drawings indicated are tentative only. The actual configuration of isolated foundation can be decided by the contractor. Please confirm.	Confirmed, foundation types drawing is for bidding purposed only. Contractor shall ultimately propose a foundation design based on Geotechnical investigation findings for Employer/Engineer review and approval.
65	GC & PC 8.7	From the said clause, we understand 0.05% of the Contract Price per day of delay (with a maximum of 10% of Contract Value) shall be levied only on unexecuted portion of the contract price. Kindly confirm.	It will be Levied on the complete contract price

Nº	Reference	Query	Clarification
66	PC 13.8	As per the Adjustment table, the One of the Source of Indices Used for Tower Material and Conductor for price adjustment is Construction Steel - London Metal Exchange CFR India (official rate) We wish to inform that the London Metal exchange does not publish any indices for Construction Steel on CFR India basis. For this commodity we propose to use Indices as published by Indian Electrical and Electronics Manufacturers' Association (IEEMA). These indices are widely used and accepted by all manufacturers.	Please see clarification No. 142 below.
67	GC and PC 14.2	As per PC 14.2 - Currencies & Proportions: Advance payment will be made in USD only.  As we shall be quoting Schedules in USD & NPR, kindly confirm how the advance on NPR quoted portion will be calculated and paid	As stated in Part A - Contract Data 14.2 Total Advance Payment is 10% Percentage of the Accepted Contract Amount  Further KfW shall disburse the Advance Payment for Price Schedule I and III in USD and the Advance Payment for Price Schedule II and IV shall paid by NEA in NPR  Please read Part B Specific Provisions Clause 14.4 and 14.7
68	GC & PC 14.6	As per clause - Minimum Amount of Interim Payment Certificates is 1% of the Contract Amount but not less than 100,000 USD - which is a considerable amount.  To enable better financial management, we request that minimum amount of Interim Payment Certificates may be removed.	Bidding Documents requirement shall be followed
69	PC 14.6 Taxation	We request you to confirm the applicable rate of TDS for all Schedules (Supplies, Erection ESMP) as per the law of Nepal on present day.	Bidders shall refer to prevailing law of GoN.
70	Insurance	We understand that all the insurances mentioned in the tender clause can be purchased from any reputed Insurance company. Kindly Confirm.	All the insurances mentioned in the tender clause can be purchased from reputed Insurance companies

Nº	Reference	Query	Clarification
71	ITB 40.5	As per clause "If the Financial Bid, which results in the lowest Evaluated Financial Bid Price, is significantly lower than the Employer's estimate, the Employer shall require the Bidder to produce detailed price analyses for any or all items of the Schedules"  We request you to confirm the estimate for this tender.	Estimate of the Bid price cannot be shared.
72	ITB 43 & BDS 28.3	As per ITB the "Subject to ITB 42.1, the Employer shall award the Contract to the Bidder whose combined Technical and Financial Bid has the highest score and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be eligible and qualified to perform the Contract satisfactorily"  And as per BDS 28.3 Combined scoring system for technical and Financial Bids is not applicable  We request you to clarify whether this contract will be award on bidder with lowest evaluated financial bid or if there is any other financial criteria which will be applicable for scoring Financial bids	The Technical and Commercial evaluation will be based on pass / fail criteria.  No combined scoring system for the Technical and the Financial Bids to be used
73	PC 17.6	Maximum total liability of the Contractor to the Employer: 1.1 time contract amount  As per previous NEA/Funded tenders the limitation of liability is set as 1.0 time the contract amount. We request to kindly accept the same limitation of liability for this tender.  Please confirm	Please follow the requirement as mentioned in the Bidding Documents
74	Volume 1 Clause 1.1.4.13	Grant – Please inform us the total funding done by kFW for this project and the contribution of NEA in the overall project cost	KfW Development Bank has given the grant of 9,500,000 EUR to Nepal Electricity Authority for Lekhnath Damauli 220 kV Transmission Line Project (only for Lot A).
75	Volume 1 Schedule of Payment Clause 14.4	"Please confirm that full letter of credit shall be opened for the Progress payment under Schedule 1"	Please see Part III, section
76	Volume 1 Section VII-1	"please inform us the status of IEE and provide us approved copy of the IEE Study"	Please see attached Annex R and Annex S to Amendment No. A_2.

Nº	Reference	Query	Clarification
77	Volume 1 Under Mandatory Spare PartsS.No 4.1	Please confirm if we have to supply 1 no of Basic Body and 1 no of each leg extension under each unit of measurement i.e. pcs.	Each of the items 4.1.1 to 4.1.5 comprise the supply of a complete tower standard height (+-0 body extension and 4 standard +-0 leg extensions) and 1 piece of each body extensions and leg extensions (i.e.: for tower DA is 4 body extensions +3, +6, +9 and +12, and 6 legs extensions: -3.0, -1.5, +1.5, +3.0, +4.5, +6.0)
78	Volume 1 Mandatory Spare Parts S.No 6	Other Necessary Material and Equipment – Please inform us the requirement as the description is general in nature and does not define the requirement.	As item description reads, any other equipment and or material that is required for maintenance and operation that is not asked for but that the bidder considers it necessary
79	Volume 1 Price Preamble	Please provide us the operational norms followed by NEA to propose as these are based on the O&M practice followed by asset owner.	The bidder shall propose the recommended spare part based on its operational experience and maintenance requirements of the equipment
80	Volume 1 Clause ITB 18.1	Please allow currency for Local Portion Price Schedule II, IV and V in USD and NPR considering the expenses in both NPR and USD.	Please follow the requirements of the Bidding Documents.
81	Volume 1 Clause ITB 23.1	Please confirm the copy of the Bid to be submitted in Fitcher GmbH & Co. KG need to be submitted before 14 November 2022 in Germany. Considering the uncertainty in the logistic please mandate the dispatch of the document by this date or allow soft copy submission. Only mandatory submission of Hard copy in Nepal. Please confirm.	Please refer to Item No. 12 above.

Nº	Reference	Query	Clarification
82	Volume 1 Price Schedule Clause- 1.8	Foundation Testing under schedule IV – It is mentioned as lot.  Please confirm the testing requirement and whether the test has to be done at each location.  Please confirm.	Please refer to updated Price Schedules.  Foundation test, items 1.8.1 to 1.8. in Sch. IV, refer to a Design test (as per EN 61773, section 4.1) are single, one individual test, per foundation type. For the Design tests the actual foundation design (i.e. for which tower type) and location shall be discussed and agreed upon between Contractor and Engineer/Employer in due time. Unit Lot includes retesting until design ultimate load is successfully achieved.  Foundation Proof tests (as per EN 61773, 4.2) required are up to 75% of design ultimate load, see as per EN 61773, chapter 8.
83	Volume 1 Clause- 4.3	Project Communication and Visibility Services: Please inform us the requirement under this line item. Please elaborate the meaning Visibility Services.	Please refer to Part II, Section VII-1: Project Description and Scope of Works, 9.2 Communication and Visibility
84	Volume 2 Page 23 - Part 2	Please confirm the responsibility of negotiation with landowners for Tower location and Line corridor is with NEA or Contractor?	Please refer to Part III, Section VIII. General Conditions (GC), Sub-clause 2.1.
85	Volume 2 Page 23 - Part 2	Please confirm whether the land acquisition and compensation to land owner is to be done by NEA or Contractor?	According to Part III, Section VIII. General Conditions (GC), Sub-clause 4.13 "Rights of Way and Facilities", and Sub-Clause 1.13 "Compliance with Laws", all temporary works and related permitting are under the responsibility of the Contractor, whereas the acquisition of the permission to execute the permanent works is under the responsibility of the Employer (please refer to Part III, Section VIII. General Conditions (GC), Sub-clause 2.1 "Right of Access to the Site".

Nº	Reference	Query	Clarification
86	Volume 2 Page 23 - Part 2	"Please inform us the permission Contractor need to take from which authority before start of work?"	Please refer to item No. 85 above.
87	Volume 2 Page 23 - Part 2	"Please inform us the forest and environmental clearance will be done by NEA or Contractor?"	As per Part II, Section VII, VII-1: Project Description and Scope of Works, Chapter 7, the Contractor shall be responsible for all vegetation clearing within the RoW corridor, including removal from site and appropriate disposal of all tree-cutting remains, branches, scrubs, bushes, etc. Vegetation clearing works shall be carried out as prescribed in Project Environmental and Social Management Plan (ESMP). Vegetation clearance outside of RoW corridor, if required for site access, also falls under Contractor's responsibility  Please see also doc. VII-5 Appendix 3, Environmental and Social Management and Monitoring Plan, and Schedule No. V, ESHS requirements, item 1.10.
88	Volume 2 Page 23 - Part 2	Please inform us the responsibility to get approval from road, gas pipeline, road, telecommunication line etc is to be done by NEA or Contractor?	The Contract shall support the Employer in getting approval and work permit for all overhead line crossings, such as roads, power lines, gas pipelines, roads, telecommunication lines, etc. Including submission of crossing detail design, detailed outage schedule, detailed works plan, scaffolding location, etc. and all documentation required as per local regulations.  Outage schedule of existing lines shall be incorporated into overall project schedule.
89	Volume 2 Page 23 - Part 2	Please inform the resettlement of existing property, demolition of all affected existing building and structure within RoW corridor is to be done by NEA or Contractor?	Please see item No. 85 above.

Nº	Reference	Query	Clarification
90	Volume 1 Clause 1.2,1.3 Price Schedule	under Additional Works Schedule 4, please allow payment on monthly basis instead of Lump sum.	During the execution of the project, the lump sum price items might be split in multiple interim payment, subject to mutual agreement between the Employer and the Contractor.
91	Volume 1 Price Adjustment	Please allow price adjustment on construction and installation portion under Schedule IV, considering the volatility in the material and local labour rates for such long time period project of 24 month completion and 24 month defect liability period. As per international practice project with timeline beyond 12 months have provision for the escalation. Please allow.	Please see Clarification No. 142 below.
92	Volume 1 Price Adjustment	Please confirm the meaning of "The date of adjustment shall be the mid-point (180 days) of the period of manufacture or installation of component or Plant"	Please see Clarification No. 142 below
93	Volume 1 Price Adjustment	Is it mid point of commencement date and supply date for each lot separately ? Please conform	Please see Clarification No. 142 below
94	Volume 1 Price Adjustment	"Is it mid point of commencement date and last supply date for all lot? Please confirm"	Please see Clarification No. 142 below
95	Volume 1 Price Adjustment	The fixed price component is very high – Tower 36% and Conductor – 30%. For Tower – There is no compensation for Zinc being galvanized structure. Please allow variation as per Fixed – 20%, Zinc – 16% and Steel – 64%  For Conductor – please increase the Aluminium variation from present 52% to 67% and reduce fixed component to 15% as per actual cost contribution for allow complete variation.	Please see Clarification No. 142 below
96	Volume 1 Price Adjustment	For Conductor – In steel reference is Construction Steel -London Metal Exchange CFR India (official rate), which is not used in Conductor instead Steel wires of 2.79-4.10 mm diameter is used. Please allow bidder to indicate the applicable indices as per country of sourcing.	Please see Clarification No. 142 below

Nº	Reference	Query	Clarification
97	Volume 2 Land Acquisition and Resettlement Section VII-5 Page 295 of 419	Please confirm that Land owner compensation and RAP will be responsibility of NEA including RAP entitlement not compensated as it is impossible for Contractor to determine.	NEA is responsible for the compensation payments related to RAP.  As per Bidding Documents, the Contractor shall provide: - site area polygon drawing at all proposed tower locations - area polygons of cadastral data and ownership titles for identification of PAPs in digital georeferenced file, such as shape file (for affected tower locations, all affected private properties in the overhead line right of way and ancillary working areas, such as access roads, laydown areas, etc) - schedule PAPs and related cadastral area polygon(-s), including its identification
			number/code and relevant information
98		Please provide us location wise RAP done by NEA till date for this line/ project.	RAP will be established based on final OHTL routing design performed by the Contractor.

Nº	Reference	Query	Clarification
99	Volume 2 Forest and Land Clearance Section VII-5 Page 295 of 419	- It is mentioned that Loss of crops will be compensated. Please confirm that loss crop and forest clearance will be made by NEA.	Loss of crops of compensation shall be done by the Contractor for temporary works. For permanent works, the compensation of loss of crops is under the Employer responsibility.  As per Part II, Section VII, VII-1: Project Description and Scope of Works, Chapter 7, the Contractor shall be responsible for all vegetation clearing within the RoW corridor, including removal from site and appropriate disposal of all tree-cutting remains, branches, scrubs, bushes, etc. Vegetation clearing works shall be carried out as prescribed in Project Environmental and Social Management Plan (ESMP). Vegetation clearance outside of RoW corridor, if required for site access, also falls under Contractor's responsibility.

Nº	Reference	Query	Clarification
100	Volume 2 Other Stakeholders Section VII-5 Page 301 of 419 Clause 6.4	Please confirm that NEA will be responsible for land compensation? Please confirm the tree plantation program will be carried our by NEA or Forest Department and not under scope of Contractor?	Please refer to clarification No. 97 above.  As per Part II, Section VII, VII-4, Chapter 8.3.4, the Contractor shall be responsible for the replantation of access roads that will not be used for maintenance shall be considered especially in forest areas or not-cultivated slopes. If located in RoW this can be done with low growing bushes and grass to stabilize slopes.  As per BAP included in Part II, Section VII-5, Environmental and Social Management and Monitoring Plan, the Employer shall be responsible for the plantation program which will be carried out as compensation of trees cleared by the Project. The plantation sites will be determined in consultation with the Ministry of Forests and Soil Conservation, the Division Forest Office and Project Affected Community Forest Users' Groups
101	Volume 2 General Technical Requirement Sec VIII-3 Clause 12	Kindly Provide the KN ratings of Composite long rod Insulator	Please refer to item No.3
102	Section VII-4, Clause. 6.5.2	As per section VII-4, clause. no. 6.5.2, "Material factors" Partial material factor (Ym) for conductor, earth wire & OPGW is given as 1.65.  However, as per BSEN 50341-1:2012, cl. No. 9.6.2, partial factor for conductor is 1.25.  Kindly confirm, bidder have to follow the technical specification.	Please adhere to the project scope of works and technical requirements.

Nº	Reference	Query	Clarification
103	Section VII-4, Clause. 6.5.2	As per section VII-4, clause. no. 6.5.2, "Material factors" Partial material factor (Ym) for insulators and hardware is given as 1.8.  However, as per BSEN 50341-1:2012, cl. No. 9.6.2, partial factor for hardware is 1.6. Kindly confirm, bidder have to follow the technical specification.	Please adhere to the project scope of works and technical requirements.
104	Section VII-3, Clause. 6.2.1.4	As per Section VII-3, clause no. 6.2.1.4, "Miscellaneous", Redundant members shall be capable of supporting an axial tensile or compressive load of at least 2.5% of the maximum computed compressive load in the supported main member applied perpendicular to the axis of the main member.  Whereas per BSEN 50341-1:2012, cl. No. J.4.4, Secondary (or redundant) bracing members, refer below screenshot for percentage force for redundant design.  J.4.4 Secondary (or redundant) bracing members  The provisions given in H.4 of EN 1993-3-1:2006 should be applied.  The angle between the redundant and the main member should be not less than 15°. The percentage p of H.4(2) may be determined according to the afternative following formula:  p = (3.+32)/60 with 1.5 p.s.3.5  Kindly confirm, bidder have to strictly follow the technical specification and design each and every redundant with 2.5% force of connected members.  There is no any reduction of force allowed as per BSEN 50341-1:2012.	Please see clarification No. 45 above.

Nº	Reference	Query	Clarification
105	Section IV. Bidding Forms Schedules of Rates and Prices Schedule IV, Item: 1.2.1.8, 1.2.2.8, 1.2.3.8, 1.2.4.8 & 1.2.5.8	As per schedule IV, Total 19 locations (DA-4 nos., DB-5 nos., DC-4 nos., DD-3 nos. & DE-3 nos.) with pile foundation.  We request NEA to provide location's coordinates where pile locations will be encountered and soil report for the same locations if soil investigation done by NEA. Soil report is must to design the pile foundation locations. We request to kindly provide the soil data to design pile foundation.	Please adhere to the project scope of works and technical requirements, geotechnical investigation as well as identification of the soil type at each individual tower location is under Contractor's scope of works. Foundation type quantities provided in price schedules are preliminary, indicative, for bidding purposes only. Final decision on where and the quantity of pile foundations depends on the actual soil conditions encountered.  Please see Preamble / Schedule of Rates and Prices, provision for tower foundations will be paid "at actual" quantities.
			Additionally, please refer to Annex Q for a preliminary geotechnical investigation carried out by Employer along OHTL route for bidding purposes.

Nº	Reference	Query	Clarification
106	Section VII-4, Clause. 7.1	As per Section VII-4, clause no. 7.1, "Towers", Kindly refer below provided screenshot for base width restriction due to hilly region.  Due to the generally hilly to mountainous terrain, the Contractor shall adopt slim tower design. For double circuit towers maximum 'true' slope of the tower legs shall be limited to 200mm/m unless otherwise agreed with the Employer/Engineer. The width of six-circuit towers at base shall be minimized as far as technically practicable.  Slope restriction is given to restrict the base width due to hilly region, but slope can be maintained with broad base tower also, by increasing width at hamper level.  To fulfil the narrow base tower requirement due to hilly region, we request you to provide tower wise base width restriction at normal tower level.	Tower design is under Contractor's scope of works and shall be done in accordance with project specification and technical requirements. True slope limitation applies to the complete tower design.  Please clarify what/where is the "hamper level" located on the tower.  At this stage and in response to the query, anticipated maximum allowable tower width at the base for standard tower height are: - tower type DA: 10.0 m base face width - tower type DB and DC: 11.5 m base face width - tower type DD and DE: 13.0 m base face width  Please refer to doc. VII-4, clause 7.1.3 for standard tower height definition.  Note the updated Price Schedules, in particular Sch. No. I and Sch. No. II, requirement added for extended stubs to be supplied within foundation items.

Nº	Reference	Query		Clarification
107	Section VII-4, Clause. 6.2.1.2 & Section VII-6 (Technical Data Sheet), S.No. 2.4		nent for Natural land is 7m & for ra Sheets", S. No. 2.4, "Minimum for Cultivated & Natural land is	Please refer to Clarification No. 47 above.
108	Section IV. Bidding Forms Schedules of Rates and Prices Schedule IV, Item- 1.8 (Foundation Tests)	1.8.2 Anchor Rock foundation	test lot test lot provided technical test lot test lot to provide the list of tests to be ong with detailed technical on how many locations /	Please refer to clarification No. 82 above

Nº	Reference	Query	Clarification
109	Section VII-4, Clause no. 7.1.8 (Tower type tests)	Please, refer below screenshot for test tower requirements.  7.1.8 Tower type tests Following tower type tests shall be performed under the Contract:	Please quote tower type tests required under Schedule No. IV, items 4.1.1.1 to 4.1.1.5.
		<ul> <li>one (1) full scale destruction test of tower type DA</li> <li>one (1) full scale ultimate loading test of tower type DB</li> <li>one (1) full scale ultimate loading test of tower type DC</li> <li>one (1) full scale ultimate loading test of tower type DD</li> <li>one (1) full scale ultimate loading test of tower type 6T</li> </ul>	Regarding load calculation of tower designs that will not be tested, please refer to item No. 21
		<ul> <li>a) As per given clause, we understand that tower type DE not required to test.</li> <li>Please confirm.</li> <li>b) Can we combine the DE tower with DD tower? Please confirm.</li> <li>c) If separate tower design required for DE tower and not required to test than what partial safety factor to be consider for non-test tower. Please provide.</li> </ul>	
		d) Under crossing gantry not required to test as per above clause than what partial safety factor to be consider for non-test gantry. Please provide.	
110	Section- I-Instruction to Bidders, Clause 4.5	As per Cl. 4.5, "This bidding is open only to prequalified Bidders."  As per our understanding this bidding is open for all International Qualified Bidders & the above Pre-Qualification procedure is <b>Not Applicable</b> for this	The present bidding process include a post qualification.  No pre-qualification has been not performed.
		bidding. Kindly Confirm, if our understanding is correct.	

Nº	Reference	Query	Clarification
111	Part-I, Section IV. Bidding Forms, Declaration of Undertaking, Clause No 2.1), Page no 68 of 139	Please refer below Clause no. 2.1) of "Declaration of Undertaking" [Section IV. Bidding Forms]:  2.1) being bankrupt, wound up or ceasing our activities, having our activities administered by courts, having entered into receivership, reorganisation or being in any analogous situation  Since this clause includes "Reorganisation", please confirm that Bidder can submit a Declaration in case of an Amalgamation (of a Bidder's existing subsidiary company with Bidder's company), which is not due to bankruptcy, receivership or any analogous situation.  Please Confirm.	The Bidders shall fulfil the requirements included in the "Declaration of Undertaking" including the following:  2) We hereby certify that neither we nor any of our board members or legal representatives nor any other member of our Joint Venture including Subcontractors under the Contract are in any of the following situations:  2.1) being bankrupt, wound up or ceasing our activities, having our activities administered by courts, having entered into receivership, reorganisation or being in any analogous situation.  Furthermore, your question cannot be answered
112	Part-I, Section IV.	We understand that Contractor will get progressive payment for all Price	without having information. The Bidder can submit the Declaration, which shall be subject to further consideration by the Bank.  Please refer to Clarification No. 90 above.
112	Part-I, Section IV. Bidding Forms, Preamble / Schedules of Rates and Prices  Part-III, Section IX. Particular Conditions (PC), Part B - Specific Provisions, Schedule for Payment, Clause No 14.4	Schedule Items with Unit "Lot" or "Lump Sum". Please Confirm.  Further, we also request you to kindly arrange to define / specify the progressive milestone for various Items / Activity with Unit "Lot" or "Lump Sum", which further enable Contractor to claim relevant progressive payment after completion of such milestone. Please Clarify.	During the execution of the project, the lump sum price items might be split in multiple interim payment, subject to mutual agreement between the Employer and the Contractor.

Nº	Reference	Query	Clarification
113	Part-I, Section IV. Bidding Forms,Preamble / Schedules of Rates and PricesGeneral Clause No 4,Page No 123 of 139 Part-III, Section IX. Particular Conditions (PC), Part B - Specific Provisions,Contract Price Clause No 14.1,Page No 40 / 72.	Please find below the screen shot of the referred clause:  Exceptions, which will be paid "at actual" (based on unit rates as per Price Schedules) based on the quoted unit prices, are as follows:  • tower foundations • towers and leg extensions • leg extensions • phase conductor • OPGW / earthwire • insulator strings and fittings • tower earthing • permanent access roads. a) From the above clause, we understand that all Price Schedule items related to above will be paid "at actual" (i.e. as per actual quantity Supplied & Installed in the Project) based on quoted unit prices in Price Schedules. Please review & confirm. b) For better understanding and clarity, we request you to consider the followings: "All various Price Schedule items, for which Unit Prices not invited on "Lot" or "Lump Sum" basis, will also be paid "at actual" (i.e. as per actual quantity Supplied & Installed in the Project based on quoted unit prices in Price Schedules). " Please review & confirm.	a) Confirmed b) Please follow the Bidding Document

Nº	Reference	Query	Clarification
114	Part-I, Section IV. Bidding Forms, Preamble / Schedules of Rates and Prices General Clause No 4, Page No 123 of 139  Part-III, Section IX. Particular Conditions (PC), Part B - Specific Provisions, Contract Price Clause No 14.1, Page No 40 / 72.	a) Considering hilly / mountainous topography of Transmission Line route involved in this Package, given quantity of following major items in price schedule may vary substantially post-award (directly link with changes in transmission line route / tower locations & relevant assessment of Environmental Impactetc.), which are also quite difficult to ascertain at this pre-tender stage:  -> Upgrade of Temporary Access Track to Permanent Access Roads -> Aviation Protection and Aircraft Warning System -> Stringing of Conductor / OPGW / Earthwire -> Tower Platform Protection with Slope Stabilisation -> Tower Platform Protection with Erosion Prevention Accordingly, all above items will also be paid "at actual" (i.e. as per actual executed quantity in Project based on quoted unit prices in Price Schedules), which further enable Bidders to prepare more realistic estimates for this Project. Please review & confirm. b) Further, all various Price Schedule items, against which Unit Prices not quoted on "Lot" or "Lump Sum" basis, shall also be paid "at actual" (i.e. as per actual quantity Supplied & Installed in the Project based on quoted unit prices in Price Schedules) for better clarity & understanding. Please review & confirm.	Please quote items in Sch. IV as presented. Is Bidder's duty to carefully analyse the project requirements and estimate adequate tower protection measures.  Note that tower platform refers actually to tower individual location/site, item does not call for installation of a platform.  Please refer to updated Price Schedules, in particular Sch. No IV, items under 1.9.3 and 1.9.4
115	Section IV. Bidding Forms Schedules of Rates and Prices Schedule I & II, Item- 1.3, 1.4, 1.5, 2.3, 2.4, 2.5 & 3.3	We have observed that units of item- 1.3, 1.4, 1.5, 2.3, 2.4, 2.5 & 3.3 are given in "LOT".  Given route length / no of Locations & type of Towers, may vary during detail survey & designing stage post award. Further, detailed survey, designing, vibro analysis etc., seems not possible at this pre-tender stage.  Considering above, we request you to kindly arrange to provide likely quantity based on pre-tender stage assessment of Employer's Engineer and invite "Unit Prices" per "Piece / No" instead of per "Lot". Please review & confirm.	Please quote items in Sch. IV as presented. It is Bidder's duty to carefully analyse the project requirements, preliminary OHL route length and number of towers and estimate adequately the quantities required and, consequently, cost estimate for the lot.

Nº	Reference	Query	Clarification
116	Section IV. Bidding	Only "120KN Composite Insulator" given under Mandatory Spare Parts (Item-	Typo error, please refer to updated Schedules.
	Forms	4.3.1).	
	Schedules of Rates and	From the above, we understand that all kind of Insulator Strings will be	
	Prices	required in combination of "120KN Composite Insulator", i.e. for Single	
	Schedule I, Item- 4.3.1	Suspension & Tension String - One Single 120KN Composite Longrod Insulator	
	(120KN Composite	required, while for Double Suspension & Tension String - Two Parallel 120KN	
	Insulator)	Composite Longrod Insulator required.	
		Please review & confirm our above understanding.	
117	Section IV. Bidding	Since, there is no relevance of soil classification with supply of stubs, cleats,	Understanding is correct, in Schedule No. only the
	Forms	setting and extended chimney where required.	elements of the foundation that will be supplied
	Schedules of Rates and	We understand that for these Foundation items in Price Schedule no-I (Supply	from abroad.
	Prices	of Plant), Bidders only need to consider supply of Stubs & Cleats, except	
	Schedule I & II, Item-	construction material under item nos. 1.11, 2.10 & 3.8 of Schedule I.	Please note updated Price Schedules, in particular
	1.11, 2.10, 3.8	Please confirm.	foundation stub supply items.
118	Section IV. Bidding	As per item- 1.1.5, Contractor needs to provide "Housing facilities for Employer	
	Forms	/ Engineer use including operation and maintenance during Contract period."	Please note updated Price Schedules, item removed
	Schedules of Rates and	However, the detailed requirements & relevant technical specification of the	
	Prices	Housing facilities are not provided in Bid Document.	
	Schedule IV, Item- 1.1.5	Therefore, we request you to kindly arrange to provide the same for realistic estimation of relevant cost in our proposal.	
119	Section IV. Bidding	i) As per the given clause, we understand that specified Portacabins	Facilities describe in clause 9.7 are for office use
	Forms	(Containers) are for office use only. Please Confirm.	only. There is no obligation of providing any further
	Schedules of Rates and	ii) We also understand that Contractor not required to provide any Cook or	services above those minimum requirements
	Prices	Peon for above Employer's Offices. Please Confirm.	specified.
	Schedule IV, Item- 1.1.4		
	Section VII-1 - Project		
	Description and scope		
	of works Cl. No.9.7		
	(Page no. 36 of 419)		

Nº	Reference	Query	Clarification
120	Section IV. Bidding Forms Schedules of Rates and Prices Schedule IV, Item- 4.1.1.5 Section VII-3, Cl. 6.7.2 & Section VII-4, Table No. 6-8 (Partial load factors)	For six-circuit tower, numbers of loading points are 20*3 = 60 and it is not possible to conduct tower testing.  So, we recommend to increase design load factor by 1.1 to avoid testing. Also remove the Item 4.1.1.5 (Ultimate loading test of Tension Tower Type 6T) from Schedule IV.  Please review & confirm.	Please refer to items No. 20 and 21.
121	Section IV. Bidding Forms Schedules of Rates and Prices Schedule VIII, Item- 1.1 (Optional Items)	Please refer Item- 1.1, Lump Sum-1 Quantity given for "License of Tower and Foundation Design for Package A OHL (220 kV towers and related foundations)".  We request you to kindly arrange to clarify the exact Type and numbers of Software License needs to be provided for Tower & Foundation design under this Item.  Please Clarify for realistic estimates.	Please note updated Price Schedules.  Item 1.1 in Schedule No. VIII is removed.
122	Section VII-4, Cl. 8.4 (Particular Technical Requirement)	"As per Clause 8.4, Particular Technical Requirements:  Chapter 16 of Sub-Section VII-3 applies with following modifications:  Clause 16.2 Stringing shall only be performed using approved equipment (puller and tensioner) set(s).  i) There seems typo error in mentioning clause no. As clause no. 16.2 of VII-3 of General Technical Requirements is of Mobilization and Demobilization. Please Confirm and provide correct clause no.  ii) Being terrain of line is hilly, maximum towers encountering will be Tension towers and suspension towers will be negligible. As a resultant, maximum sections will be of single spans. Practically, Tensioner and Puller machines are not required for Stringing.  Further, space required for fixing of Tensioner and Puller will be comparatively more and will impact environment also. Submitted for alteration and confirmation.  Please Confirm.	i) typo, it should read Clause 16.12  ii) It is mandatory to use puller and tensioner equipment during stringing. Manual pulling is not allowed.

Nº	Reference	Query	Clarification
123	Section VII-3 - General Technical Requirements Cl. No.3 (Page no 16)	As per our understanding, "Aerial LiDAR" survey not providing accurate results & not that much effective for terrains with very dense forest.  Accordingly, we understand that Contractor shall be allowed to use any of the suitable / reliable methodologies for carrying out the survey activity. Please Confirm.	Bidder is free to propose a survey works methodology that best meets project technical requirements and offer any improvements over minimum requirements.  Refer to Section I, Instruction to Bidders, 13.3  Alternative Bids for supporting documents required.
124	Section VII-4 - Access Roads Cl. No. 8.3 (Particular Technical Requirement)	Permanent Access Road:  - We understand that for permanent access road the land will be acquired by employer.  Please confirm.	We confirm that the acquisition of the land for Permanent Access Road is under the Employer responsibility (Please see Part III; Section VIII, Particular condition of the Contract, Sub-clause 2.1 "Right of Access to the Site").  For further information on the categorization of access roads, please refer to Part II, Section VII, VII-4: "Particular Technical Requirements", 8.3 Access Road.
125	Section IV. Bidding Forms Conformity of the Facilities Requirements (Page No 112 of 139)	As per Conformity of the Facilities Requirements, "The type test certificates shall not be older than 10 years and shall be issued from an independent institute."  We understand that above mentioned condition is applicable for all major supply items (i.e. Conductor / OPGW / Insulator & Insulator String / Earthwire) & it will not be required to carry-out fresh type test for these items, if contractor submits required reports / certificates for type test conducted within above stipulated time period on identical items. Kindly Confirm.	Type test of OHL major equipment shall be not older than 10 years.  Bidder shall comply with requirements, including submission of all necessary forms and documents

Nº	Reference	Query	Clarification
126	Section IV. Bidding Forms Schedules of Rates and Prices Price Schedule-I, Item- 1.2.1, 1.2.2, 1.2.3, 2.2.1, 2.2.2, 2.2.3, 3.2.1, 3.2.2, 3.2.3 Price Schedule-IV, Item- 1.1.3, 1.1.6, 1.4, 1.5, 1.6, 2.4, 2.5, 2.6, 3.4, 3.5, 3.6, 3.7	We understand that for all items related to Supply of Conductor, OPGW & Earthwire, Route-Km length (i.e. Quantity) shall be measured as per inclined distance between towers in Hilly Stretches instead of Horizontal distance. Payment shall also be made as per inclined distance. Please Confirm.  Further, we also understand that for all items related to Survey, Permanent Access Road and Stringing (Conductor, OPGW & Earthwire), Route-Km length (i.e. Quantity) shall be measured as per inclined distance between towers in Hilly Stretches instead of Horizontal distance. Payment shall also be made as per inclined distance. Please Confirm.	Unit "route km", for all items in Price Schedules, refers to the horizontal distance along the proposed OHTL centre line.  Allowance shall be made for the actual conductor length including sloped and sag distances, cut-offs, jumpers, joint. For OPGW it includes also both down-loops and coil to the joint box, earthing connections, etc.
127	Section VII-1 & 2, Project Descriptions & Scope of Works / Project Procedure	Permitted extra consumption of Line Material not clarified in Bid Documents. However, we understand that Contractor is responsible to supply additional quantity of Line Materials (i.e. Conductor / OPGW / EWetc.), required for Sag, Jumpering, Connections, Damages, Loss & Wastageetc., without any extra cost to Employer.  Employer will pay as per quoted "Unit Prices", considering actual executed "Route-Km" quantity only. Please confirm our above understanding.	Please refer to Section I, Instruction to Bidders, 17. Financial Bid Prices and Discounts; Section V, Bidding Forms, Financial Bid, Preamble /Schedule of Rates and Prices; and clarification No. 126  See also item No. 126 above.  Further reference is made to Annex P limits of supply and doc. VII-1, clause 5.5.
128	Section IV. Bidding Forms Schedules of Rates and Prices Schedule I, Item- 5	As per Item- 5 (Tools), we need to provide mentioned tools in this project. We request you to kindly arrange to provide detailed technical specification of required Tools.	Please quote items in Schedules as presented.
129	Section III. Evaluation and Qualification Criteria Clause 5.6(a) ILO Core Labor Standards	In the Clause 5.6(a) ILO Core Labor Standards, under column (Documentation Requirements / Forms), it is mentioned that Bidder needs to submit: "Application Sub-mission Form (f) and form COC-5.6".  However, in the Bid documents, relevant sample Form / Format for Application Sub-mission Form (f) is not provided.  We request you to kindly arrange to provide the same.	Please note that a sample of Form COC-5.6 is included in Section IV. Bidding Forms

Nº	Reference	Query	Clarification
130	Section IV. Bidding Forms Schedules of Rates and Prices Schedule IV, Item- 4.1 (Type Tests) & 4.2 (Training)	For Item no. 4.1 & 4.2 of Price Schedule No. IV, Bidders to quote the unit rate in NPR (Nepalese Rupees) as per given blank Price Schedule.  However, all the type tests for various items given under Item No. 4.1 & overseas Training covered under Item No. 4.2 will be executed outside Nepal and all relevant expenses will also be incurred in Foreign Currency.  Accordingly, Bidder shall be allowed to quote against these items in Foreign Currency (USD).  We request you transfer these referred items in Schedule-III or provide separate Schedule, which further enable Bidder to quote Unit Rates for these items in Foreign Currency. Please review & confirm.	Please refer to updated Price Schedules, in particular Schedule No. III
131	Section IV. Bidding Forms Schedules of Rates and Prices Schedule I & II, Item- 1.6.2, 1.6.3 & 1.6.4 (Aviation Protection & Aircraft Warning System)	In referred items of price schedule, related to Aviation Protection & Aircraft Warning System, Quantity is given in route-km. Further, clear guidelines regarding no of lights / diverters required to be installed per Route-Kms, not clearly given in Specifications.  Accordingly, we request you to kindly arrange to invite "Unit Price" against these Items in "Nos" and also provide detailed Technical Specification & installation Guidelines to work out the realistic cost estimates.	Please quote items in Schedules as requested.

Nº	Reference	Query	Clarification
132	Part-B: Specific Provisions	In line with Clause No. 14.16 of Part - III,	
	Cl. 14.16 (Taxation) (Page No 51/72)	a. We understand that for imported plants and equipment (under Price Schedule No-I, VII, VIII), the applicable Custom Duty, VAT and other taxes in Nepal will be exempted or reimbursed by employer as per actual. Please Confirm, if our understanding is correct.	a) VAT and Custom duty (if there are any) shall be reimbursed as per applicable law of GoN.
		<ul> <li>b. Further, we understand that Bidders require to quote the "Unit Price" exclusive of applicable VAT in Nepal, against various items under following Price Schedules:</li> <li>- Schedule NoII (Plant from Employer's Country)</li> <li>- Schedule NoIII (Design Services)</li> <li>- Schedule NoIV (Installation &amp; Other Services)</li> <li>- Schedule NoV (ESHS Requirements)</li> </ul>	b) VAT will be reimbursed to Contractor by Employer as per applicable law of GoN.
		The applicable VAT will be exempted or reimbursed to Contractor by Employer, in addition to the Unit Prices quoted in above Price Schedule No-II, III, IV, V.	
		Please Confirm, if our above understanding for VAT applicability is correct.	

Nº	Reference	Query	Clarification
133	Section-IV. Bidding	Kindly refer the formula for Price Adjustment provide under referred section	Please refer to Clarification No. 142 below.
	Forms	for Tower material and Conductors.	
	Price Adjustments for Tower material and Conductors & Part-B: Specific Provisions	For Tower $Pn = P_0  \times  (a  +  b \frac{Fe_0}{Fe_1})  -  P_0$ For Conductor	
	Cl. 13.8	$Pn = P_0 \times (a + b \frac{Fe_0}{Fe_1} + c \frac{Al_0}{Al_1}) - P_0$ From above, we observed that provided formulas are not correct and ratio shall be "Adjustment date Indices / Base date Indices", as per below revised formula. For Tower Material: Pn = P0 x (a + b x Fe1 / Fe0) – P0 For Conductor: Pn = P0 x (a + b x Fe1 / Fe0 + c x Al1 / Al0) – P0 Please review & issue necessary amendments / clarifications in this regard.	
134	Section-IV. Bidding Forms Price Adjustments for	As per given Clause, Price Adjustment only Applicable to Price Schedule I item 1.1 for Towers and 1.2.1 for Conductors.  While, 220KV & 132KV Loop In-Loop Out line also requires supply of Towers &	Confirmed
	Tower material and	Conductors.	
	Conductors	Accordingly, Price Adjustment shall also be applicable for item 2.1 / 3.1.1 / 4.1	
	&	related to Towers and Item 2.2.1 / 3.2 / 4.2.1 / 4.2.2 related to Conductors.	
	Part-B: Specific	, , ,	
	Provisions Cl. 13.8	Please review & confirm.	

Nº	Reference	Query	Clarification
135	Section-IV. Bidding Forms Price Adjustments for Tower material and Conductors & Part-B: Specific Provisions Cl. 13.8	As per given Price Adjustment Clause, Bidders to follow London Metal Exchange CFR India (official rate), as a source of Indices for Tower Steel Material.  Please note that London Metal Exchange not publishing any kind of Indices (CFR India Official rate) for Construction Steel. However, they are publishing rates only for "LME Steel Scrap CFR India (Platts)".  Further, we would like to inform you that above LME Steel Scrap rates does not vary as per actual market variations in steel raw material prices. Further, majority of the Multilateral development Bank funding projects (i.e. ADB / World Bank / AIIBetc.) also allowed Bidders to propose Price Adjustment Indices as applicable to the appropriate industry in the Country of Origin, sourced from reputed organizations and widely used by the business community.  Accordingly, Bidder shall also be allowed to propose Indices for various items as per their Country of Origin. Like for Steel in India, Indices published by IEEMA is widely followed & internationally also acceptable.  Please review & confirm.	Please refer to Clarification No. 142 below.

Nº	Reference	Query	Clarification
Ins Ser Ad	chedule No. IV: Installation and Other ervices, Item No.1.9.2 Idditional Works, Page 9 of 60	Please refer item no. 1.9.2 of Price Schedule No. IV.  'Installation of 132kV tower for connection of autotransformer and gantry in Lekhnath substation'.    Installation of 132kV tower for connection of autotransformer and gantry in Lekhnath substation'.   Installation of 132kV tower for connection of autotransformer and gantry in Lekhnath substation as per clause 5.3 of Subsection VII-1 including all design verifications, investigations, measurements, material supply and installation works necessary for complete execution.  Regarding above requirements, we request you to kindly arrange to clarify & confirm the followings:  (i) We understand that Contractor require to only Design, Supply & Install Transmission Tower with associated Insulator Fittings at Lekhnath Sub-station.  While all other Line Materials, like conductors / OPGW / EWetc. shall be supplied & installed by NEA or Package-B Sub-station Contractor. Please clarify.  (ii) If Package-A Contractor is responsible to supply all kind of Line Materials (Conductor / OPGW / EWetc) along with Tower, then NEA will pay to Contractor against supply of these items as per Unit Rate quoted in Price Schedule-I, Item 3 for 132kV Loop In-Loop Out.  Accordingly, Bidders for Package-A, requires to quote for Civil & Installation work in tem No. 1.9.2 of Schedule No. IV.  Please review & confirm.	As per Sch. IV, item No. 1.9.2 description, Contractor's scope includes the supply and installation of all materials and installation works, including lattice tower and the 132 kV OHL conductors and earth wire.  The coordination of the related interfaces with the Substation Contractor (Package B) is included within the scope of this package (see section 5.5 Interfaces and limit of supply)

Nº	Reference	Query	Clarification
137	Schedule No. IV: Installation and Other Services, Item No.1.9.3 & 1.9.4, Additional Works, Page 49 of 60	As per Bid documents, given Transmission Line Route and Tower Locations are tentative (not yet frozen) and it may vary during detailed survey considering Land Acquisition situation / Right of Way clearance requirements / assessment of Environmental Impact and other various executional constraint. Further, detailed Site survey / freezing of Tower Locations also could not be possible within given time period at this pre-tender stage.  Considering given Hilly-Mountainous terrain / topography, it's difficult to assess the realistic requirements for Tower Platform Protection (i.e. Slope Stabilisation & erosion prevention measuresetc.) and any kind of relevant assessment / assumptions may vary drastically with variation in Transmission Line Route & Tower Locations.  Accordingly, we request you to kindly arrange to provide detailed item wise breakup with suitable quantity BOQ (Bill of Quantity) for various major items requires for Tower platform protection work as per below & invite unit rates against the same:  (i) Random rubble stone masonry in 1 : 5 cement sand mortar (1 cement : 5 coarse sand) including filling the voids within masonry with 1 : 4 : 8 lean concrete (in Cum)  (ii) Stone bound in galvanizing wire netting including excavation (in Cum)  (iii) Back filling and levelling of volumes enclosed by revetment (in Cum)  (iv) M15 Concrete Nominal Mix 1:2:4 for top seal cover (in Cum)  (v) Benching  Please review above and issue relevant clarifications / amendment in this regard to invite more realistic proposal from various Bidders.	Please refer to updated Price Schedules, in particular under Schedule IV, updated items under 1.9.3 and 1.9.4. Reference is made to item No. 114  Cement mortar shall be mixed according to commonly applied for stone masonry works in accordance with the local site conditions and practice. However, approval will be given during the detail engineering phase.

Schedule No. IV: nstallation and Other Services, Item No.2.7.2 Additional Works, Page	Please refer item no. 2.7.2 of Price Schedule No. IV, regarding 'Relocation of approximately 300m of 33kV line between AP62 and AP63, including any necessary design services, additional material supply and installation works for	
52 of 60	complete execution.'  Relocation of approximately 300m of 33kV line between AP62 and AP63, including any necessary design services, additional material supply and installation works for complete execution  Regarding above requirements, we request you to kindly arrange to clarify & confirm the followings:  (i) Since this is completely a new Scope and required material specification also not be available in Bid documents, we request NEA to supply free of cost all new materials (e.g. Pole / Towers / Line Material / Conductor, OPGW, Insulator, HW etc) required for shifting & relocation of this existing 33KV OHL. Please review & confirm.	i) As discussed during the pre-bid meeting, Contractor shall supply all materials in accordance with NEA specification and requirements for 33 kV OHLs
Schedule No. IV: nstallation and Other Services, tem No.4.2.1 & 4.2.3, Training of Employer's Staff, Page 55 of 60	Please confirm.  Please refer item no. 4.2.1 & 4.2.3 of Price Schedule No. IV, regarding 'PLS-CADD & PLS Tower License registered to the Employer'  4.2 TRAINING OF EMPLOYERS STAFF 4.22 PLS CADD (Standard + FE edition) license registered to the pcs 1   1   1   1   1   1   1   1   1   1	<ul> <li>ii) confirmed, all civil as well as installation works are under Contractor's scope of works</li> <li>i) confirmed, licenses shall be registered under Employer.</li> <li>ii) Please assume Employer has no other licenses</li> </ul>
t Ti	chedule No. IV: istallation and Other ervices, em No.4.2.1 & 4.2.3, raining of Employer's	Relocation of approximately 300m of 33kV line between AP62 and AP63, including any necessary design services, additional material supply and installation works for complete execution  Regarding above requirements, we request you to kindly arrange to clarify & confirm the followings:  (i) Since this is completely a new Scope and required material specification also not be available in Bid documents, we request NEA to supply free of cost all new materials (e.g. Pole / Towers / Line Material / Conductor, OPGW, Insulator, HW etc) required for shifting & relocation of this existing 33KV OHL. Please review & confirm.  (ii) Whereas, all the Civil & Installation work shall be in the Contractor's Scope. Please confirm.  Please refer item no. 4.2.1 & 4.2.3 of Price Schedule No. IV, regarding 'PLS-CADD & PLS Tower License registered to the Employer'  Please refer item no. 4.2.1 & 4.2.3 of Price Schedule No. IV, regarding 'PLS-CADD & PLS Tower License registered to the Employer'  12 TRANNING OF EMPLOYER'S STAFF   4.2.2   PLS TOWER LICENSE PRICE   pcs   1

Nº	Reference	Query	Clarification
140	Cl. 14.9, Section-IX, Particular Conditions (PC)	Retention Money - We understand that Second Part (5%) of Retention Money will be paid / released by Employer only after completion of 'Defect Notification Period' & 'Issuance of Taking Over Certificate (TOC). Please confirm.	Confirmed
141	Section IV. Bidding Forms Schedules of Rates and Prices Schedule IV, Item- 3.7 & Section VII- 6 (Technical Data Sheet) S.No 1.1.3.3	As per Item- 3.7, Schedule IV, Section-IV, Package A: OHL - Part I, we need to do Stringing of OPGW 96 FIBRES (equivalent to 66-A20SA) in Old Damauli - Bharatpur 132 kV S/C Interconnection to Damauli S/S (LI-LO).    1.1.3	Typo error on Data Sheets. An OPGW is required between the tee-off point and the new Damauli substation, in line with doc. VII-1, Project Description and Scope of Works, clause 5.2 and Project Price Schedules

142	Part I, Section IV "Bidding Forms", Financial Bid, Preamble / Schedules of Rates and Price,	The following shall be considered by the Bidders:
	Part III, Section IX "Particular Conditions (PC)", Contract Data (Part A) and Special Conditions (Part B), Sub-clause 13.8 "Price Adjustment"	For Tower
	apara at a same to the same and a same and a same to the same and a same a same and a same a same a same and a same	The following formula
		$Pn = P_0 \times (a + b \frac{Fe_0}{Fe_1}) - P_0$
		Shall be replaced by
		$Pn = P_0 \times (a + b\frac{Fe_n}{Fe_0}) - P_0$
		in which:
		$P_n$ = adjustment amount payable to the
		Contractor
		P <sub>0</sub> = Contract price (base price)
		a = percentage of fixed element in
		Contract price (a = 36%)
		<pre>b = percentage of construction steel component in Contract price (b =64%)</pre>
		M <sub>FEO</sub> , M <sub>FE1</sub> = International
		Construction Steel Index
		on the base date and the date for adjustment, respectively

 ist of Queries and Clarifications			
	For Conductor		
	The following formula		
	$Pn = P_{\theta} \times (a + b\frac{Fe_{\theta}}{Fe_{\pm}} + c\frac{Al_{\theta}}{Al_{\pm}}) - P_{\theta}$		
	Shall be replaced by		
	$Pn = P_0 \times (a + b \frac{Fe_n}{Fe_0} + c \frac{Al_n}{Al_0}) - P_0$		
	in which:		
	$P_n = adjustment amount payable to the Contractor$		
	$P_0$ = Contract price (base price)		
	a = percentage of fixed element in		
	Contract price (a = 30%)		
	b = percentage of construction steel		
	component in Contract price (b =18%)		
	c = percentage of Aluminum		
	component in Contract price (c = 52%)		
	$M_{FEO}$ , $M_{FEI}$ = International		
	Construction Steel Index		
	on the base date and the		
	·		

		date for adjustment,
		respectively
	$M_{ALO}$ , $M_{AL1}$ =	International Aluminum
		Price Index on the base
		date and the date for
		adjustment, respectively
	The fellowing contour	
	The following sentenc	e
	The base date shall l	oe the date thirty (30) days
		, , , ,
	prior to the Bid closi	<del>ng date.</del>
	Chall have a larger lie	
	Shall be replaced by	
	The been detechall l	be the date thirty (30) days
	•	nission date as defined Part I,
		Sheet, Submission and
	Opening of Bids", Su	b-clause No. 23.1.
	The following sentence	е
	<del>-</del> 1 1 . 6 1: .	
		ent shall be the mid-point
		riod of manufacture or
	installation of comp	onent or Plant.
	Shall be replaced by	
	The date of adjustm	ent shall be 180 days prior the
	shipment of the goo	ds.

Nº	Reference	Query	Clarification
143	Package A: OHL - Part I	As per Bid documents, Bidder needs to provide Composite Long Rod (CLR)	Please refer to doc. VII-4, Particular Technical
	&	Insulator.	Requirements, and doc. VII-6, Technical Data Sheets,
	Package A: OHL - Part II	However, all reputed manufacturers / suppliers of CLR insulators requested us	for the basic system performance parameters and
		to provide certain basic technical requirement, which has not been provided	insulator units and set requirements; i.e.: creepage
	Section IV. Bidding	along with the Bid.	distance, power frequency, lightning and switching
	Forms	Therefore, we request you to kindly arrange to provide following details:	requirements, etc. which provide sufficient technical
	Schedules of Rates and	1. Sectional length of CLR Insulator [mm].	basis for a competitive bidding.
	Prices	2. Arcing Distance (Minimum) [mm].	Composite insulator units shall be supplied with
	Schedule I & II: Item-	3. Minimum Failing Load [KN].	grading rings to ensure long term performance, see
	1.7, 2.6, 3.4 & 4.4	4. Wet One Minute Power frequency withstand voltage [kV(rms)].	doc. VII-3, General Technical Requirements, clause
	&	5. Dry Lighting impulse withstand Voltage - Positive Polarity [kVp].	12.2.7 Insulator Protective Devices.
	Section VII- 3,	6. Dry Lighting impulse withstand Voltage - Negative Polarity [kVp].	
	Clause-12 (Insulators	7. Switching impulse voltage [kVp].	During detailed engineering phase insulator units
	and insulator Sets)	8. Corona extension Voltage [kV(rms)].	and set designs shall be in any case submitted for
	and Section VII-4,	9. Dielectric values.	Employer review and approval.
	Clause-7.6 (Insulators	10. Mass of zinc coating on end fittings.	
	and insulator Sets)	11. Number of grading rings for each insulator.	Reference is made to Part I, Invitation for Bids:
			contract conditions will be the for Plant and Design-
		Please ensure to provide above details earliest to proceed further	Build, where the Contractors designs and provides
			plant in accordance with Employer's requirements.
			Bidder is anticipated to be experienced in OHTL
			design and implementation projects and as such will
			be evaluated.

Nº	Reference	Query	Clarification
144	Package A: OHL - Part III  Section IX. Particular Conditions (PC)Sub- Clause-14.16 (c) ii), Taxation, Page No. 52/72	Please refer below given Clause no. 14.16 (c) in Bid documents:  (c) In the event that the origin of any of the Contractor's or its Subcontractor's or the nominated Subcontractor's plant, equipment and materials is India, the provisions for the exemption of customs duties, and VAT as is mentioned in this clause shall be applied only under the following conditions. Failure to comply with these conditions will result in application of normal customs duties, VAT as per prevailing rules and regulation of Government of Nepal (GoN).  ii) should the Contractor request payment in other convertible currencies, the equipment and materials must have been imported under 'In Bond Transfer Procedures'.  In ref to above clause, may we request you to kindly arrange to clarify the followings:  1. What exactly is the "In Bond Transfer Procedure" for material import in Nepal. Please Clarify.  2. Presently materials are imported from India in the name of NEA as consignee to which concessional custom duty/ other duties is applicable. Will the concessional duties still prevail, when materials will be imported in the name of KPTL-Nepal as consignee for the execution of work for NEA? Kindly clarify & confirm.  3. Will there be any specific documents required to be submitted in NEA or to other authority for this "In Bond Transfer Procedures" ?? or Will NEA issue any documents to Contractor for availing bond contract for import of materials?	Contractor shall follow the provisions of Bidding Documents and applicable legal requirements of GoN.

Nº	Reference	Query	Clarification
145	Package A: OHL - Part II  Section VII-1: Project Description and Scope of Works Clause-9.7, Page No. 36	As per the Clause, Bidder needs to supply and install 'Office Container' & 'Meeting Room Container' which will be used by NEA on temporary basis. All the Containers shall be provided with appropriate furniture & equipped with all the facilities such as internet connection, A.C., communication system along with the services necessary for their operations such as electrical energy, potable water supply, sewers, drainage system, fire extinguishing system, regular cleaning, etc.  Sine the entire route of Transmission Line is passing through Mountainous / Hilly Terrains, may we request your to kindly arrange to clarify / confirm the followings:  i) Please confirm the likely place / location along the route, where Employer needs Contractor to install this Office & meeting room containers, which further enable Bidders to assess the realistic cost estimates for installation & maintenance of this containers for entire duration of Project.  ii) Considering Hilly / Mountainous terrain and only 45 kms route length (i.e. short travelling distance between two ends of Transmission Line), we would like to propose following options:  a) It will be more effective to install & maintain the Containers at either ends of the Transmission Line (i.e. at Lekhnath Substation or at New Damauli Substation premises).  b) It is also convenient to install & maintain the Containers in bidder's Stores or in the city area (nearby the stores), for easy access and approach.  c) We would also like to propose that it will be more prudent to have well established rented office, equipped with all the facilities as per the NEA's requirements, at either end of Transmission Line (i.e. at Lekhnath or at Damauli), instead of installing containers.  Please review all above proposed Options and confirm acceptable Option to Employer.	Please quote items in Sch. IV as presented. It is Bidder's duty to carefully analyse the project requirements, site conditions and adequately cost estimate each individual item.  Contractor will be informed of the actual location of site offices during Contract implementation.  However, Contractor at any time may submit a proposal which, if adopted, reduces the cost to the Employer of executing, maintaining or operating the Works, improve efficiency or value to the Employer, or otherwise be of benefit to the Employer.

Nº	Reference	Query	Clarification
146	Package A: OHL - Part I  Section IV. Bidding Forms	As per the given Price Schedule, Unit Prices against several critical items are invited on 'Lot' & 'Lumpsum' basis. Accordingly, Bidders required to assess & workout the likely / tentative Bill of Quantity (i.e. BOQ/BOM) and relevant cost estimates for given 45 kms route length.	Please refer to already answered query, item No. 115.  Furthermore, reference is made to updated Price
	Schedules of Rates and Prices, Price Schedule	However, given 45 kms route length may vary substantially based on detailed survey during execution and contractor's estimated BOQ/Cost will also increase or decrease in proportion to route length.  Accordingly, quoted Unit Prices and payment against these "Lot" or "Lumpsum" items, shall also be increased / decreased in proportion to route length. Please review and confirm	Schedules.
147	Package A: OHL - Part I  Schedule-IV – 1.1.2 – Construction, maintenance and reinstatement of new access roads, including erosion protection measures and all other works.	As specified in Clause no. 8.3.7 of section VII-4 Particular Technical Requirements.  Access roads shall be made in two layers (load bearing and cover layer) with a minimum width of 3.0 m or maximum vehicle width plus 0.5m. The load bearing layer and cover layer shall be made for heavy transports with a maximum axle load of 12 t and a maximum total weight of 60 t.  Load-bearing layer shall be based on a surface with in-situ value of California Bearing Ratio (CBR) of at least 7%. In poor soil areas where this CBR value cannot be achieved at shallow excavation depth, replacement of soil layer (ca 1m thickness) with crushed rock, or alternative method of soil reinforcement shall be considered.  The details provided in the above clause does not suffice the specification of the roads to be constructed.  Please provide further details of specific materials to be used in the access road.	Please note that doc. VII-4 provides the minimum functional requirements, performance of the Works, as opposed to being a detailed specification of the materials required and works to be carried out.  Reference is made to Part I, Invitation for Bids: contract conditions will be the for Plant and Design-Build, where the Contractors designs and provides plant in accordance with Employer's requirements.

Nº	Reference	Query	Clarification
S U a p	Package A: OHL - Part I Schedule-IV – 1.1.3 – Upgrade of Temporary access tracks to permanent as per clause 8.3.11 of sub section VII-4	"As specified in Clause no. 8.3.7 / 8.3.11 of section VII-4 Particular Technical Requirements.  Access roads shall be made in two layers (load bearing and cover layer) with a minimum width of 3.0 m or maximum vehicle width plus 0.5m. The load bearing layer and cover layer shall be made for heavy transports with a maximum axle load of 12 t and a maximum total weight of 60 t.  Load-bearing layer shall be based on a surface with in-situ value of California Bearing Ratio (CBR) of at least 7%. In poor soil areas where this CBR value cannot be achieved at shallow excavation depth, replacement of soil layer (ca 1m thickness) with crushed rock, or alternative method of soil reinforcement shall be considered.  The details provided in the above clause does not suffice the specification of the roads to be constructed.  Please provide further detailed specifications for permanent Track / details of materials to be used in the permanent access road.	Please see item above.