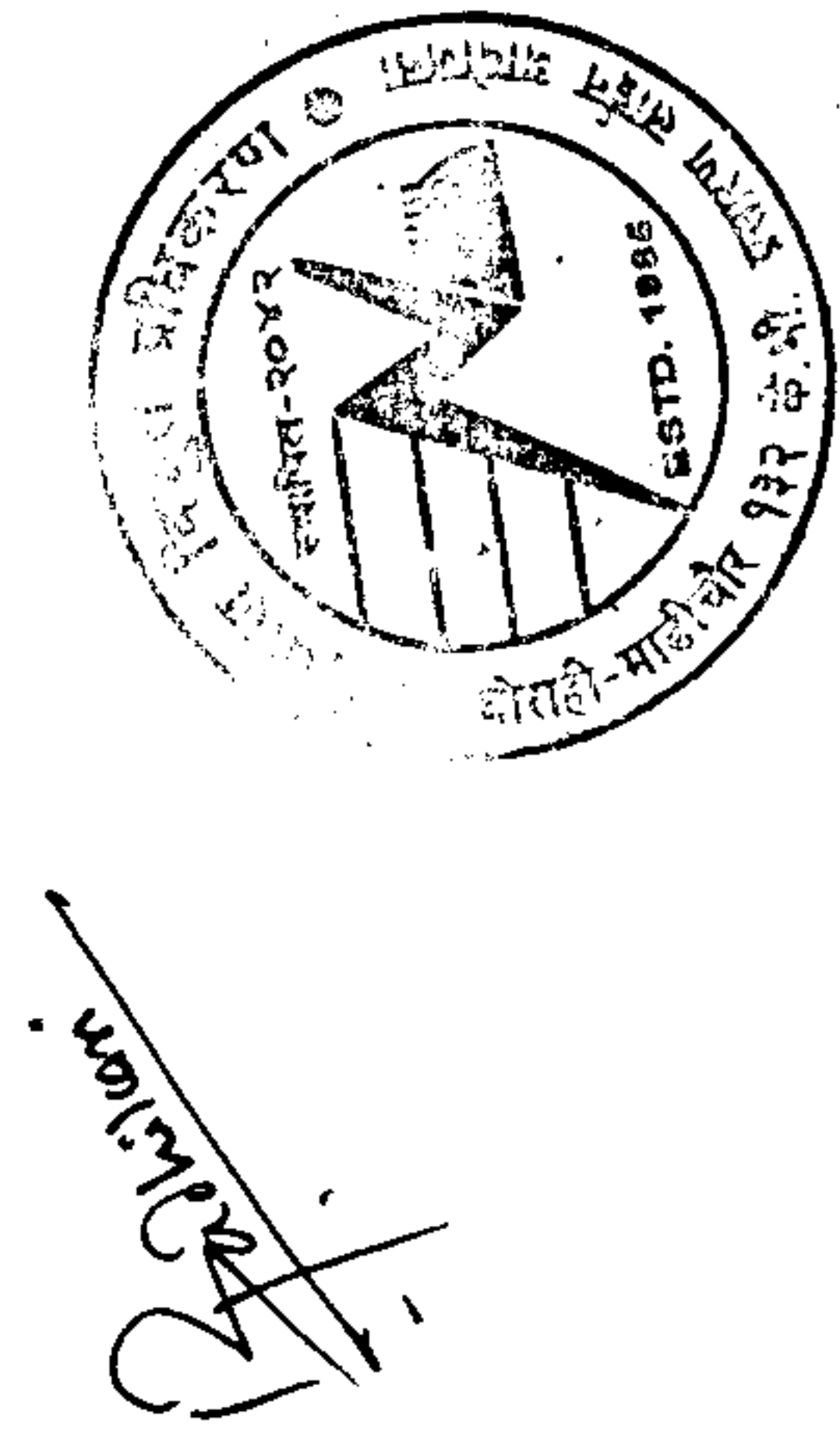


Electricity Grid Modernization Project
Design, Supply, Installation, Testing and Commissioning of Ghorahi - Khungri (Madichaur) 132 kV Transmission Line and Associated Substations at Khungri and Ghorahi.
Clarification- 1
OCB NO:PMMD/EGMP/GKTLSS-078/79-01

S.No.	Clause	Reference Document	Queries	Clarification
1	General	PMDGKMTL_Volume-I	Item D in the Letter of Price Bid is not clear, please clarify the details of item D.	(d) The discounts offered and the methodology for their application are as follows [. . .insert discounts and methodology for their application if any .]. Use this to offer the discount if any.
2	General	PMDGKMTL_Volume-I	Besides the certificate from clients mentioned in Section 3, 2.4 and 2.5 of Volume I, are there any other documents that need notarization?	All documents except original should be notarized.
3	General	PMDGKMTL_Volume-I	Is the bid security issued electronically or by letter? Who is the Beneficiary? (If the bid security issued electronically, please provide the information about the receiving bankR)	This should be as per the provision in the bid documents.
4	General	PMDGKMTL_Volume-I	Does the bid security require a counter-guarantee from a commercial bank in Nepal?	This should be as per the provision in the bid documents.
5	General	PMDGKMTL_Volume-I	As to whether there is a designated bank in the bid security, can you accept the bid security issued by the bank of the bidder's country?	This should be as per the provision in the bid documents.
6	General	PMDGKMTL_Volume-I	As the bidding time is limited, can we prepare the bidding documents of equipment, materials, fabrication and tests according to Chinese standards during the bidding period? if the contract is awarded to us, the bidding documents will be adjusted according to the American or Indian standards required by the owner.	It should be as per mentioned standards in the bid documents
7	General	PMDGKMTL_Volume-IIA	Specifications and models of transmission line conductors.	Please follow the bid documents.
8	General	PMDGKMTL_Volume-IIA	Basic seismic acceleration values at substations and 132 kV transmission lines in Nepal.	Mentioned in bid documents. Please follow bid documents
9	General	PMDGKMTL_Volume-I	Please Clarify below point As per this clause, Do we need to have experience in 2 (two) different contracts based on Design, Supply, Installation, Testing and Commissioning of 132 kV or higher voltage overhead Transmission Line and 132 kV or higher voltage Air Insulated Substations (AIS) with value US\$ 14.35 Million each or either we can have experience in 1 (One) contract in 132 kV or higher voltage Air Insulated Substations and another contract in 132 kV or higher voltage Air Insulated Substations(AIS) and overhead transmission Line with value exceeding US\$ 14.35 Million each.	Please wait the addendum for this.
10	Volume-I, Appendix 1- Terms and Procedures of Payment, Schedule No. 1 - Plant and Mandatory Spare Parts Supplied from Abroad	PMDGKMTL_Volume-I	Ten percent (10%) of the total CIP amount as an advance payment against receipt of invoice and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer. The advance payment security may be reduced in proportion to the value of the plant and equipment shipped FOB or delivered to the site, as evidenced by shipping and delivery documents	Please follow the bid documents.



11	Appendix 2 - Price Adjustment	PMDGKMTL_Volume-IIB	Bidders may please note that price adjustment will be applicable only on: 1. The copper, Ferrous material (tank and accessories) of Power Transformer. 2. the aluminum and steel component of ACSR Cardinal Transmission Line Conductor) 3. the Steel component and Zinc for Transmission Line tower Prices of all other items of supply and construction activities under the Contract, for all purpose, will remain 'FIRM' in all respects. Please provide price adjustment for below items also: 1. 11kV and 33KV HT Copper Cable and 11kV HT armored Aluminum cable 2. Power Cables - (1.1 kV grade) 3. Battery and Battery charger 4. Circuit Breaker and Switchgear 5. Grounding(Earth wire)	Please follow the bid documents.
12	General	PMDGKMTL_Volume-IIB	Please provide the following details 1. Soil Investigation Test Report 2. Soil Classification for Line for each location. 3. Topo and Contour Survey Report for Substation location	Its in bidders scope and required to propose cost for this in BOQ. You are again requested to visit the site for your assessment as asked in Pre-Bid meeting
13	VOLUME II-B OF III:SECTION-03-GENERAL TECHNICAL REQUIREMENT-POWER TRANSFORMER: Cl. No. 8; Pg.251; bid EVALUATION AND THE GUARANTEED LOSSES	PMDGKMTL_Volume-IIB	Kindly Specify the transformer losses for 24/30 MVA & 6/8 MVA power transformer i.e. No load losses Load losses and Cooler losses.	Refer the value mentioned in the bid documents.
14	VOLUME II-B OF III:SECTION-03-GENERAL TECHNICAL REQUIREMENT-I.T TRANSFORMER	PMDGKMTL_Volume-IIB	Kindly Specify the transformer losses for 250 kVA, Three Phase, 33/0.4 kV station service transformer i.e. No load losses Load losses and Cooler losses.	Refer the value mentioned in the bid documents.
15	Volume II B Substation; Schedule for Khungri Substation; Schedule No.1;Sr. no. A.a	PMDGKMTL_Volume-IIB	NIFPS or HVW spray system. Hydrant system for Power transformer is required or not. Please confirm. If yes, then please add line item for fire protection of Power transformer	Bidders shall quote transformer supply cost including this and all as per specification.
16	Volume II B Substation; Schedule for Ghorahi Substation; Schedule No.1;Sr. no G 3.0	PMDGKMTL_Volume-IIB	We understand that formation of earth mat is not required for New Bay in existing substation. Kindly share Existing earth mat layout and Spacing of Existing Main Earth mat Conductors.	Earth Mat for new bay is required. Connection points to existing Earth mat will be provided during installation but amount shall be proposed by bidder based on their own field investigation and design subject to approval from employer.
17	Volume II B Substation; Schedule for Ghorahi Substation; Schedule No.1; Sr. no. E	PMDGKMTL_Volume-IIB	Augmentation of existing bus bar protection scheme is required or not please confirm.	Required
18	General	PMDGKMTL_Volume-IIB	Kindly provide existing Electrical, Plan Layout.	For SLD and tentative layout, please refer bid documents.
19	General	PMDGKMTL_Volume-IIB	Kindly provide existing Outdoor cable trench details.	Detail design and layout shall be proposed by bidder later on.
20	General	PMDGKMTL_Volume-IIB	Kindly confirm the Space availability in existing control room building for new panels under our scope.	Please visit the site to assess such things.
21	General	PMDGKMTL_Volume-IIB	Kindly Provide the make, model and rating details of existing panels	Confirmed.
22	General	PMDGKMTL_Volume-IIB	1. SCADA Panels 2. C&R Panels 3. RTU Please arrange the following related to Transmission Line 1. Tower Schedule 2. Auto CAD files of Route Alignment plan 3. Plan & Profile of Route Alignment	Please visit the site to assess such things.
				KMZ file has been provided. Rest things are in bidders scope and you have to quote the price in BOQ for these.

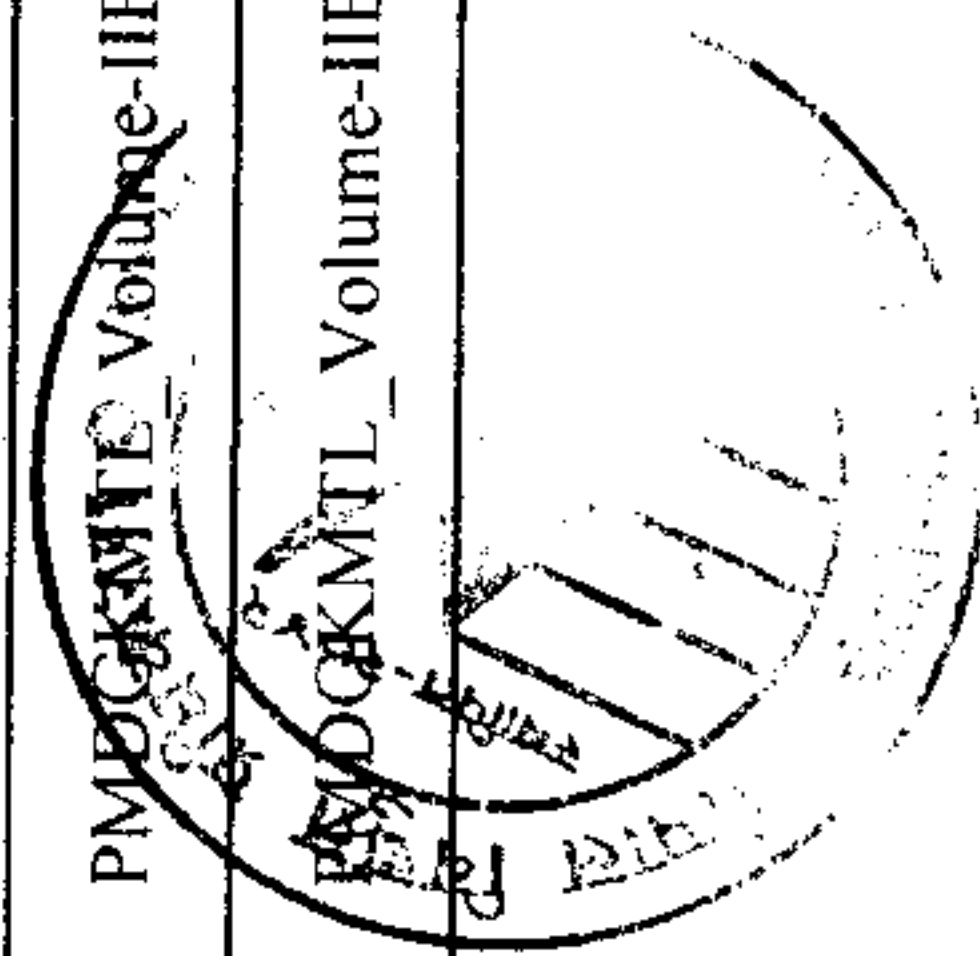
Bahukor

23	VOLUME IIB, Page no.135	PMDGKMTL_Volume-IIB	We understand the land for the substation is finalized and there will be no change in the location & area of the substation plot. Please confirm.	Confirmed.
24	VOLUME IIB, Page no.135	PMDGKMTL_Volume-IIB	Kindly provide the Corner plot co-ordinates of the proposed substation plot since the same is not available in bid document.	Please refer to Volume IIB_Section I-Project Specific Requirement (PSR).
25	VOLUME III BOQ, Sch 4, Item no. 2.3	PMDGKMTL_Volume-III	In line with the above query, if there is no separate line item for quantity of cutting in all types of soil for land development works, in that case, we understand that the cost of cutting quantity can be included in line item no. 2.3. Please confirm.	Confirmed.
26	VOLUME III BOQ, Sch 4a, Line item no. 4.0	PMDGKMTL_Volume-III	Kindly provide the elevation & section of all the two floors of Staff quarter building along with the finishing schedule. In the bid document, only floor plans are available.	Its in bidders scope to propose the design for approval so tentative layout is provided in the bid documents.
27	VOLUME III BOQ, Sch 4a, Line item no. 6.0	PMDGKMTL_Volume-III	Kindly provide the plan, elevation & section of the vehicle shed for working out the bid quantities.	See Clarification in SN-26
28	VOLUME III BOQ, Sch 4a, Line item no. 5.0	PMDGKMTL_Volume-III	Kindly provide the elevation & section of guard house building along with the finishing schedule. In the bid document, only floor plan is available.	See Clarification in SN-26
29	VOLUME III, Clause 2.3.1, Page no 7	PMDGKMTL_Volume-IIB	As per Civil scope of work, there is a provision of Badminton court in the substation. However, there is no such line item provided in the price schedule. Please clarify.	The items used for this work after design approval, will be measured and paid from miscellaneous items
30	VOLUME II, Clause no.21.5, Page no.679	PMDGKMTL_Volume-IIB	The Standard drawing no. 009 of stone masonry is not available in the bid document. We request you to provide the same.	The Standard drawing no. 009 is for counterpoise
31	VOLUME III, Clause no.21.5, Page no.679	PMDGKMTL_Volume-IIB	There is no separate line item in the price schedule for periphery chain link fence. Kindly provide the same.	Please follow the bid documents.
32	VOLUME IIA, Cl. 1.1, Page no.618	PMDGKMTL_Volume-IIB	We propose to use Indian standard codes for design of following structures of substation: 1. Tower structures & foundations 2. Equipment support structures & foundations 3. Buildings 4. Cable trenches 5. Drains 6. Roads. Kindly confirm.	Please follow the bid documents
33	VOLUME IIA, Pg 6, 2.3 (p)	PMDGKMTL_Volume-IIB	We propose to use lattice structures for all the equipment support structures. Please confirm.	Please follow the bid documents
34	VOLUME IIB, Cl. 20.16, Page no.633	PMDGKMTL_Volume-IIB	Kindly specify the grade of OPC cement to used for concrete.	Grade shall be 43 subject to lab test and approval from employer.
35	VOLUME IIB, Cl. 20.3, Page no.620	PMDGKMTL_Volume-IIB	We understand that for geotechnical investigations following are the requirements: 1. Boreholes-7 Nos 2. Trial pit - 2 Nos 3. Plate load test - 2 Nos. Kindly confirm.	Read the specifications carefully.
36	VOLUME III BOQ, Sch 4a, Item no. 2.4	PMDGKMTL_Volume-IIB	The quantity of gravel area of 4000 sq.m mentioned in the price schedule seems to be on higher side. We request you to confirm the quantity.	Please follow the bid documents.
37	VOLUME IIB	PMDGKMTL_Volume-IIB	We understand that any other items required for completion of the work which is not included in the price schedule shall be paid separately. Please confirm.	This is very vague and will differ from case to case. If the item not included in BOM is an integral part of any work, no separate payment will be made.
38	1653021454_VOLUME IIB, Clause 15.4, Page no.658	PMDGKMTL_Volume-IIB	As per Clause 15.4, an allowable bearing pressure of 8 T/m2 is to be used for bid purpose. We understand that any variation in the volume of work in final design compared to the bidding design based on soil strength for which the Contractor will not get any extra payment. Please confirm.	Confirmed.
39	VOLUME IIB, Clause 15.4, Page no.658	PMDGKMTL_Volume-IIB	As per Clause 15.4, an allowable bearing pressure of 8 T/m2 is to be used for bid purpose. However, we understand that during detailed engineering, if the safe bearing capacity is higher and volume of work in final design is reduced, then no payment will be deducted of the contractor. Kindly confirm.	Confirmed.

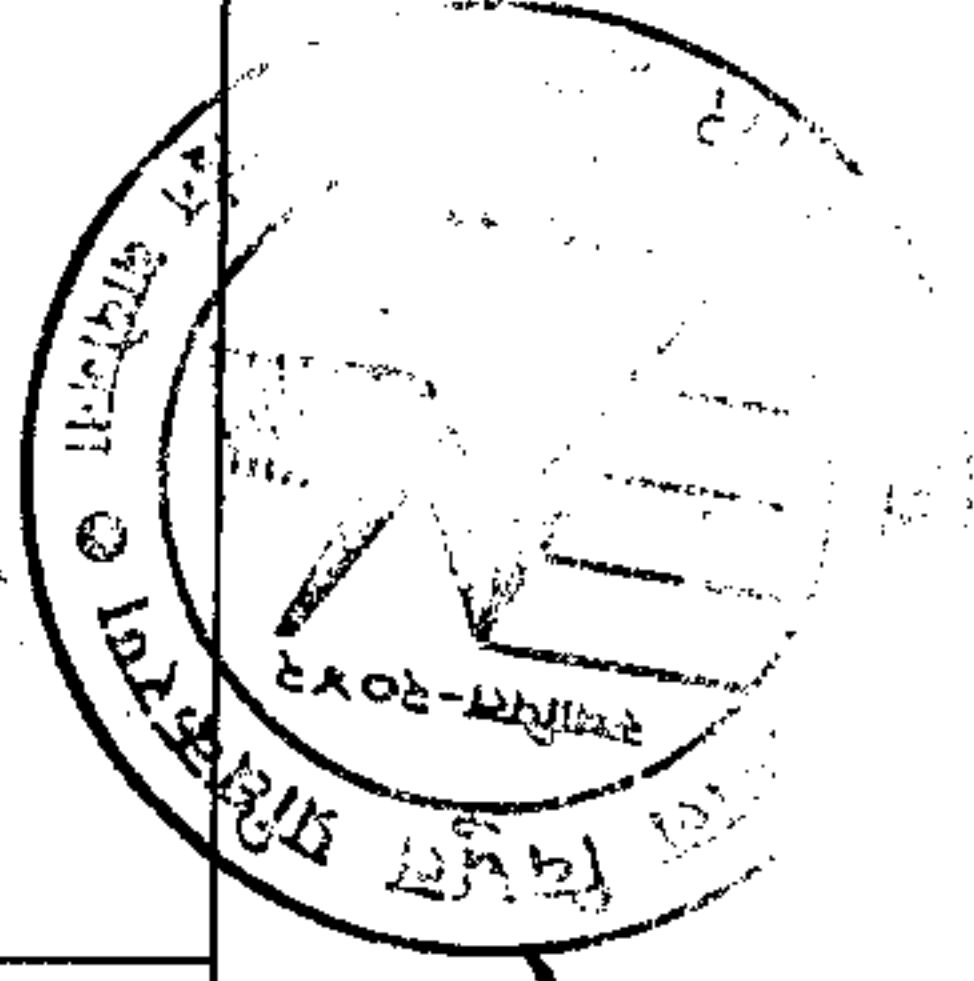
Badminton

40	VOLUME IIB, Clause 15.4, Page no.658	PMDGKMTL_Volume-IIB	We understand that an allowable bearing pressure of 8 T/m2 is to be used for buildings as well other structures such as Tower foundations, Equipment support structure foundations, Transformer foundations, Cable trenches etc. Kindly confirm.	need to be tested before design and tested and approved value shall be used.
41	VOLUME IIB, Page no.135	PMDGKMTL_Volume-IIB	As per BOQ 36KV Isolator W/O ES quantity are 6 nos. But will be 5 as per bid SLD. Plesae review & confirm.	Please follow the bid documents: BOM.
42	Schedule-1-A-(d) 5	PMDGKMTL_Volume-IIB	As per BOQ 36KV VT quantity are 3 nos. But will be 9 as per bid SLD. 3 nos for 132/33KV transformer bay & 2 nos for Bus VT. Plesae review & confirm.	
43	Schedule-1-A-(e) 5	PMDGKMTL_Volume-IIB	As per BOQ 36KV CT quantity are as per following 1. 800-400/1A - 9 nos 2. 400-200/1A - 3 Nos But as per bid SLD & Scope BOQ of 36KV CT quantity will be 1. 800-400/1A - 3 nos 2. 400-200/1A - 12 Nos 3. 200-100/1A - 3 nos. Plesae review & confirm.	
44	Schedule-1-A-(e) 6 & 7	PMDGKMTL_Volume-IIB	Plesae elaborate the scope. Also please issue route length/survey drawing for estimation.	Please follow the bid documents carefully
45	Schedule-1-A-(l) 7	PMDGKMTL_Volume-IIB	As per BOQ DG set description is "50 KVA Silent type Diesel Generator (400/230, 50 Hz) with control panel & AMF panel as per technical specification for fire fighting system." We presume that it will be 433V (i.e 3 Phase) DG set instead of 230V (1 phase) . Please confirm.	Please see the Technical specification for DG set attached with this clarification.
46	Schedule-1-A-(p) 1	PMDGKMTL_Volume-IIB	As per BOQ Following bays to be considered for SAS system 132KV Bays - 4 nos 33KV bays - 6 nos 11KV bays - 2 nos. But bays present in the scope of work are 132KV Bays - 6 nos 33KV bays - 7 nos 11KV bays - 3 nos. Plesae confirm whether bays to be integrated for SAS as mentioned in the BOQ or total bays involved in the present scope of work.	Please follow the bid documents: BOM.
47	Schedule-1-B	PMDGKMTL_Volume-IIB	AS per bid drawing "Construction Plan Layout (Khungri SS)", 132KV yard & 33KV yard are separated. Control room building is shown in the between two yard. Plesae confirm how 33KV I/C transformer bay will be connected with 132/33KV. 24/30MVA Transformer located at 132KV yard.	All design related works are in bidders scope so make your own plan about how to achieve this based on lay out plan
48	SLD & Layout	PMDGKMTL_Volume-IIB	As per SLD there are 33KV fuse before 30KV LA in 250KVA Aux trafor feeder. But same are not available in the BOQ line item. Plesae check & confirm its requirement.	Taking it as an integral part, please include this in transformer cost.
49	General	PMDGKMTL_Volume-IIB	As per BOQ, quantity of 132KV ISO WO E/S support structure are 24 nos. But as per SLD there are 4 nos 132KV bypass isolator for lines. These 4 nos ISO will be mounted on/under hung from Line Take of gantry. Please check & confirm the same.	Please follow the bid documents: BOM.
50	Schedule-1-C-1.5	PMDGKMTL_Volume-IIB	In bid drawing "General layout of Control Building", position of LT panels (ACDB/DCDB etc) are not shown. We presume that all LT panel will be located inside 11KV SWGR room. Plesae confirm.	All design related works are in bidders scope. Layout is tentative.
51	General layout of Control Building	PMDGKMTL_Volume-IIB	We presume that DG set will be located at outdoor on PCC/RCC floor without any shade. Plesae confirm.	Confirmed.
52	General	PMDGKMTL_Volume-IIB	Please arrange to mark the Dead end tower on "Construction Plan Layout (Khungri SS)" to locate take of ganty and prepare layout for estimation.	Please See KMZ file for mark. Bidder may propose better location while execution.

Balwani

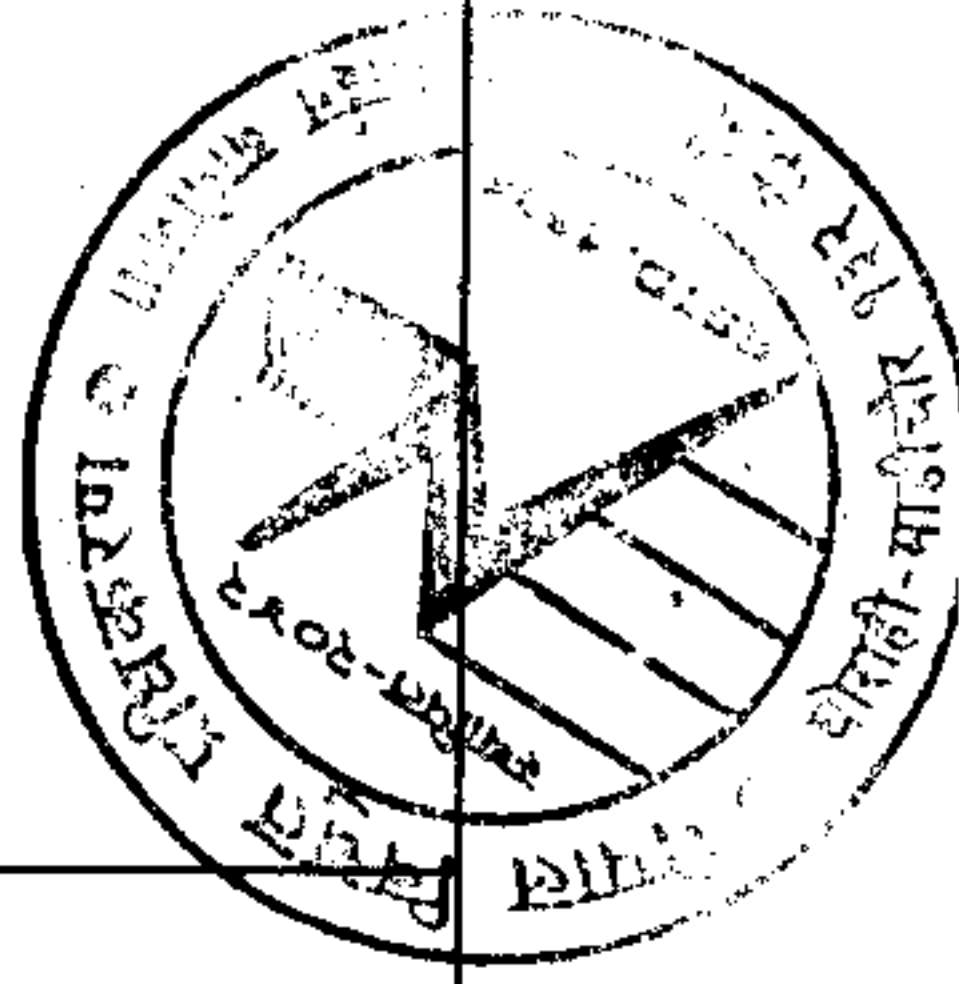


53	General	PMDGKMTL_Volume-IIB	Quarter/Guard house/Store will get LT supply from station ACDB. Please confirm.	Confirmed.
54	General	PMDGKMTL_Volume-IIB	Type Test report & Dynamic Short Circuit (DSC) report to be submitted for Transformer conducted on same rating, type and design/construction as one offered or similar design, same/higher voltage level & higher rating transformer. Please confirm.	Confirmed.
55	General	PMDGKMTL_Volume-IIB	Only type test report to be submitted which was conducted within valid time period as specified in contract document. No type test to be conducted during detail engineering stage/execution stage. Please confirm.	Type test shall be conducted for the item to be supplied during execution.
56	General	PMDGKMTL_Volume-IIB	Earth Mat to be provided only for fence area i.e. 132KV bay area/yard, 33KV bay area/yard & 11KV bay area/yard as indicated in bid layout "Construction Plan Layout (Khungri SS)". Earth mat will not be provided rest of the area inside substation boundary. Please confirm.	Confirmed.
57	General	PMDGKMTL_Volume-IIB	We presume that following are covered under outdoor lighting 1. 132KV bay area / yard 2. 33KV bay area/ Yard 3. 11KV bay area / Yard 4. Street light from Main gate entry to all inside road 5. Peripheral area across substation boundary wall. Other than above, no area/outdoor yard lighting is envisaged under present scope. Please confirm.	Confirmed.
58	General	PMDGKMTL_Volume-IIB	No lighting transformer (...KVA, 415/415V) is envisaged in the MLDB. Please confirm.	Please follow the bid documents
59	General	PMDGKMTL_Volume-IIB	As present work involves bay extension at Ghorahi SS, following existing drawings are required for estimation 1. Existing electrical layout plan & section 2. Existing Earthing Layout & Detail Drawing 3. Existing Cable trench layout 4. Existing Control Room building layout	Please visit the site to assess such things
60	General	PMDGKMTL_Volume-IIB	We presume that there are sufficient space available in the control room to accommodate present scope CRP panel. Please confirm.	See Clarification in SN-20
61	General	PMDGKMTL_Volume-IIB	As present work involves CRP-SAS integration of new bays with existing system, following existing drawings are required for estimation 1. Existing CRP Make 2. Existing Bus bar protection panel schematics 3. Existing SAS/SCADA Make 4. Existing SAS architecture drawing 5. Existing RTU panel drawing	Please visit the site to assess such things.
62	General	PMDGKMTL_Volume-IIB	Since there are no line items for ACDB/DCDB or extension of ACDB/DCDB, we presume that there are sufficient spare feeder available in ACDB/DCDB to feed present scope LT Aux supply wherever required. Please confirm.	Please follow the bid documents
63	Volume II-A section-4/ Clause 4.3/ pg no. 4 and Volume II-A section-11/ Clause 11.3/ pg no. 4	PMDGKMTL_Volume-IIA	As per Volume II-A section-4/ Clause 4.3, "An allowance of 500 mm shall be provided to account for errors in stringing" and as per Volume II-A section-11/ Clause 11.3, "Approximately 0.5m shall be added to the clearance values above to allow for survey and drawings errors". Kindly confirm whether to add total error of 1m in clearance value or 0.5m total error in clearance value.	It should be 0.5m



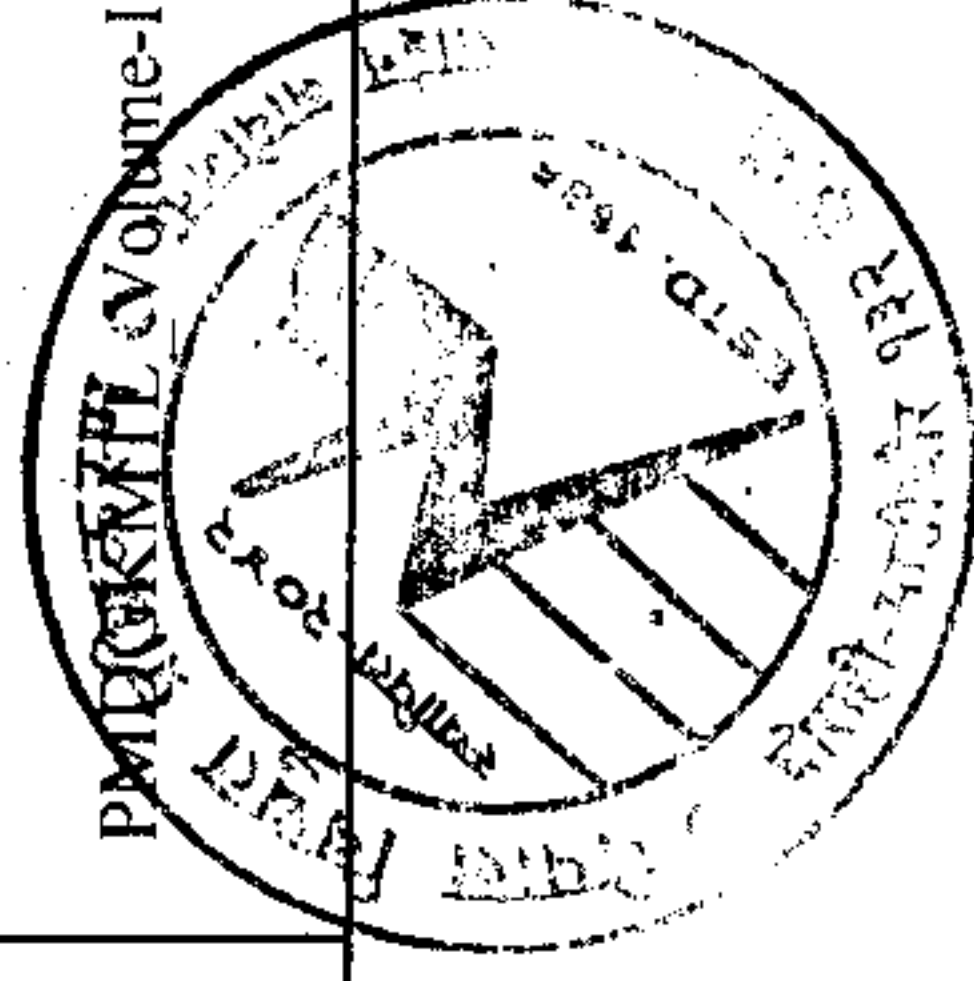
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64	Volume II-A section-4/ Clause 4.18/ pg no.24	PMDGKMTL_Volume-IIA	Please confirm the edition of IS 802 to be used for design purposes 1995 or latest 2015. Please note the drag coefficients on tower are incorrect in the 2015 edition. Please confirm our understanding that the Loads on conductor, tower shall be calculated as per 2015 edition, however the drag coefficients on tower shall be as per table of IS 802 1995 edition which are correct values. Please confirm our understanding.	Confirmed.
65	Volume II-A section-5/ Clause 5.2/ pg no. 3 and Volume II-A section-5/ Clause 5.5/ pg no. 8	PMDGKMTL_Volume-IIA	As per Volume II-A section-5 cl-5.2, "Criteria for structural design of foundation"-iii; "In all foundations, a lean concrete sub-base having a thickness of 100 mm and of size equal the concrete pyramid base/ RCC shall be provided under structural concrete" where as in Cl 5.5, for concrete spread footing, "Uplift foundations shall be cast against undisturbed soil for a minimum height of 250 mm and 50 mm lean concrete" is specified. Kindly confirm the lean pad height to be considered for design.	It should be 100 mm.
66	Volume II-A section-4/ Clause 4.7	PMDGKMTL_Volume-IIA	As per Cl.4.7, "Details of structural steel", minimum guaranteed yield stress of MS=2600kg/cm ² and HT=3600kg/cm ² whereas according to IS 2062, minimum grade of steel is E250 (MS) with yield stress of 2549 kg/cm ² and E350 (HT) with yield stress= 3569 kg/cm ² . Kindly confirm if we can use E250 and E350 steel with properties inline with IS 2062. Please mention the Grade of Steel to be used.	Confirmed and you have to use both E250 and E350 steel with properties inline with IS 2062
67	Schedule 4e Testing /	PMDGKMTL_Volume-IIA	Kindly confirm prototype testing of DF tower is with 0M extension/Normal tower.	Please follow the bid documents.
68	General	PMDGKMTL_Volume-IIB	Please indicate the clear scope of work for Firefighting protection system (whether fire pump/hydrant/HVWS or NIFPS required for transformer). Also include the line items for that in the BOQ.	Please follow the bid documents: BOM
69	General	PMDGKMTL_Volume-IIB	Following specification are not included in the bid. Please arrange to provide the same 1. DCDB 2. DG Set 3. Fire fighting protection & Detection system.	Please follow the bid documents and for DG set. see uploading with this clarification.
70	Technical Schedule (11.9 Schedule A.9. m) page 196/286 of technical Specification	PMDGKMTL_Volume-IIA	In Long Rod Polymeric Insulators. it has been mentioned two different altitude ranges and there is no exact altitude value.	Please read ≥ 2100 m as up to 2100m
71	Volume-I-clause 2.6.2 & 2.6.3	PMDGKMTL_Volume-IIA	As per clause 2.6.1 of TS, "The variation of altitudes of the proposed 132 Kv transmission line range from approximately 614m above MSL to approximately 1845m above MSL." and as per clauses 2.6.2 & 2.6.3 "Towers shall be designed based on the requirement of BIL, electrical clearances and ground clearances applicable for existing altitude level." and Altitude zone mentioned 2600m; And also in technical schedule A.1 Altitude zone: "Altitude upto and including 2100m". Please confirm which need to be considered for design purpose.	Please note from Section-1, the range of MSL for the proposed T1. is given as 614m-1845m. Electrical clearances provided in Section 4, clause 4.3 are minimum and shall be applied with altitude correction. Please read ≥ 2100 m as up to 2100m in TS
72	General	PMDGKMTL_Volume-IIA	Details of composite long rod insulator along with hardware attachment for suspension Tension, and Pilot insulator-Please provide.	Please follow the bid documents.
73	General	PMDGKMTL_Volume-IIA	As per BOQ "Special tower" is denoted by "DF" and as per clause 2.6.3 of TS Special tower" is considered as a 60-90 deg tower with 4 crossarms. Again, as per clause 2.10.2 "In case there is inevitable situation to use +18m extension in any type of tower (which is not envisaged by NEA during detail survey), the tower type to be used in this situation shall be +18m DF type only". In the same clause, it is mentioned: "Further Special tower with the conductor to cable termination using 4 cross arms may be required at Khungri S/S for dead-ending purpose". Hence, we wish to know whether we consider "Special Tower" as "DF" with 60-90 deg with 4 cross arms or "DF" with +18m tower. Also, 4 crossarms required means 4 cross arms each cross-arm level or at total 4 cross arms required in the tower.	We have not envisaged the use of DF tower but incase needed it shall address all need may be +18 or 4 cross arm with cable termination or anything else as demanded by site condition.



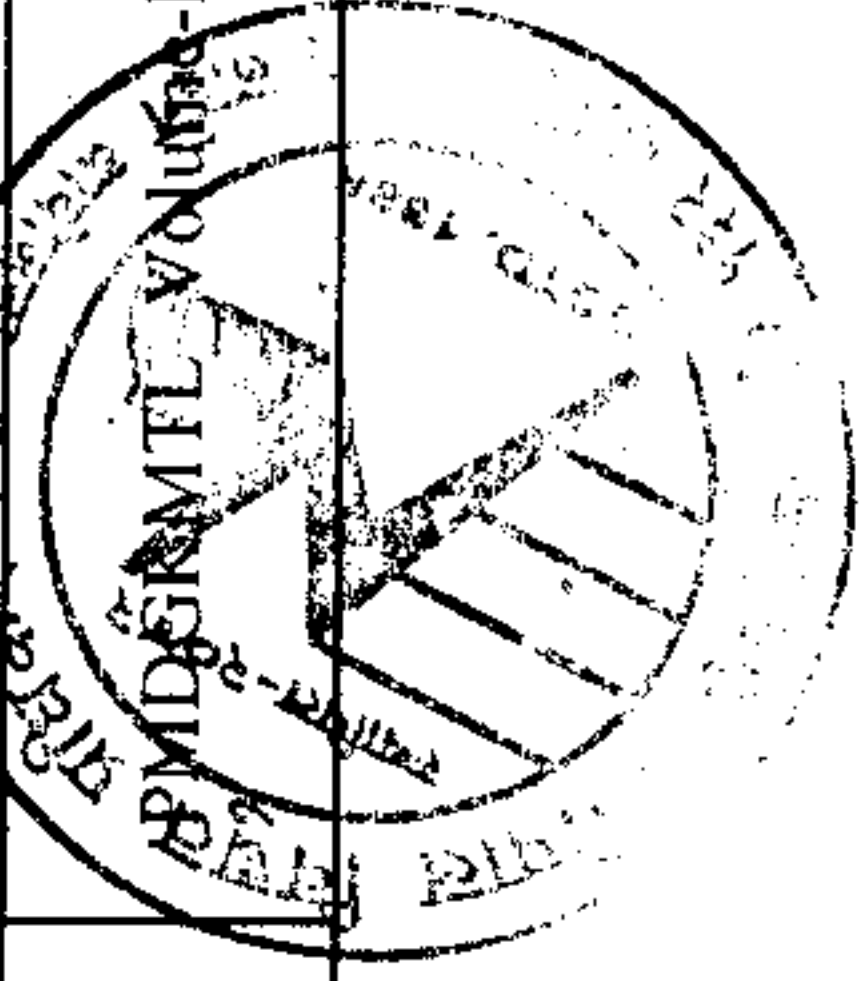
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74	General	PMDGKMTL_Volume-IIA	Please confirm the code to be referred for loading and windload condition is as per IS802:Part 1 Sec 1:1995 or IS802:Part 1 sec1:2015. If the latest IS is to be considered, please confirm the angle of the wind to be considered as per the code or perpendicular to conductor i.e., 0 deg.	Please refer both codes and use wind loads as per IS802:Part 1 sec1:2015
75	General	PMDGKMTL_Volume-IIA	Please confirm the ground clearance to be considered as 6.5 m as per schedule A.3.	Please follow Schedule A.3 of Section-11
76	General	PMDGKMTL_Volume-IIA	Please confirm the clearance mentioned in clause 4.3 is min. Live metal clearance and altitude correction factors need to be considered on it.	Confirmed.
77	Khungri Substation	PMDGKMTL_Volume-IIB	Please provide the Electrical Layout - plan and section drawings	SLD and tentative Layout is in bid document Rest bidder has to propose after award of tender
78	Ghorahi substation Detail	PMDGKMTL_Volume-IIB	1. We assume that space is available in the control room to accommodate our panels. Please confirm 2. We assume that space is available in the existing cable trench to accommodate cables from new bays. Please confirm.	Confirmed.
79	General	PMDGKMTL_Volume-IIB	Kindly provide the approved vendor list of Nepal Electricity Authority.	Please follow the bid documents.
80	Volume IIB, Section-5, General Technical requirement of disconnecting switch	PMDGKMTL_Volume-IIB	Specification calls for center break but BOQ states Double break disconnecting switches	Please read it as double break disconnecting switches.
81	Volume IIB, Section-5, General Technical requirement of disconnecting switch	PMDGKMTL_Volume-IIB	Makes referred in Technical specification of Disconnect Switch are ABB, Siemens/GE/Alstom who are presently not manufacturers of the same. Please provide approved vendor list	Please follow the bid documents
82	Volume II B, section -21- technical schedule, 1.13.2- Technical Particulars for 11 KV Switchgear and Volume IIB - Section 8B, Clause 1.6, Main Equipments characteristics	PMDGKMTL_Volume-IIB	As per the technical particulars for 11KV switchgear the rated lightning impulse withstand voltage (kVp): 95 whereas chapter 8B -Clause 1.6 mentioned the rated lightning impulse withstand voltage (kVp): 75. Please confirm the exact value to be followed.	Please read this as 95
83	Volume II B, section -21- technical schedule, 1.13.2- Technical Particulars for 11 KV Switchgear and Volume IIB - Section 8B, Rating and features of each 12KV Single Tier switchgear panel complete	PMDGKMTL_Volume-IIB	As per the technical particulars for 11KV switchgear the rated continuous current: 800A, whereas as per appendix 8B - Sr. No. 6A the current rating mentioned is 2000A (i/c) and 1250A (o/g). Please confirm the exact value to be followed.	Please take this as 2000A (i/c) and 1250 (o/g)
84	Volume - IIB, Section- 1, Project specification requirement, Clause - 2.3.1, Khungri substation	PMDGKMTL_Volume-IIB	We trust that the following civil works are not in bidders scope 1. Land acquisition for proposed substation (including approach road land) 2. Construction of approach road from main road to substation boundary. 3. Boundary wall along with main gate. 4. Rain water harvesting 5. Dewatering arrangement 6. Borewell for water supply. Please confirm.	Construction water management is under the bidder scopes
85	Volume - IIB, Section- 1, Project specification requirement, Clause - 2.3.1, Khungri substation	PMDGKMTL_Volume-IIB	we do not envisage any building extension or modification works in the existing control room under present scope of work in existing Ghorahi substation. Kindly confirm. If not add an item for the same in price schedule and also provide the existing control room building drawings.	Confirmed.
86	Volume - IIB, Section- 1, Project specification requirement, Clause - 1.2.6, Khungri and Ghorahi substation	PMDGKMTL_Volume-IIB	As per referred clause, the complete Drains system including RCC slab cover is paid in lumpsum basis. However the provision of drainage system is not mentioned in the technical specification. Please specify the provision of drains, whether drains are to be provided on both the sides of road or single side.	Bidder needs to study and propose the quantum of need of drainage required



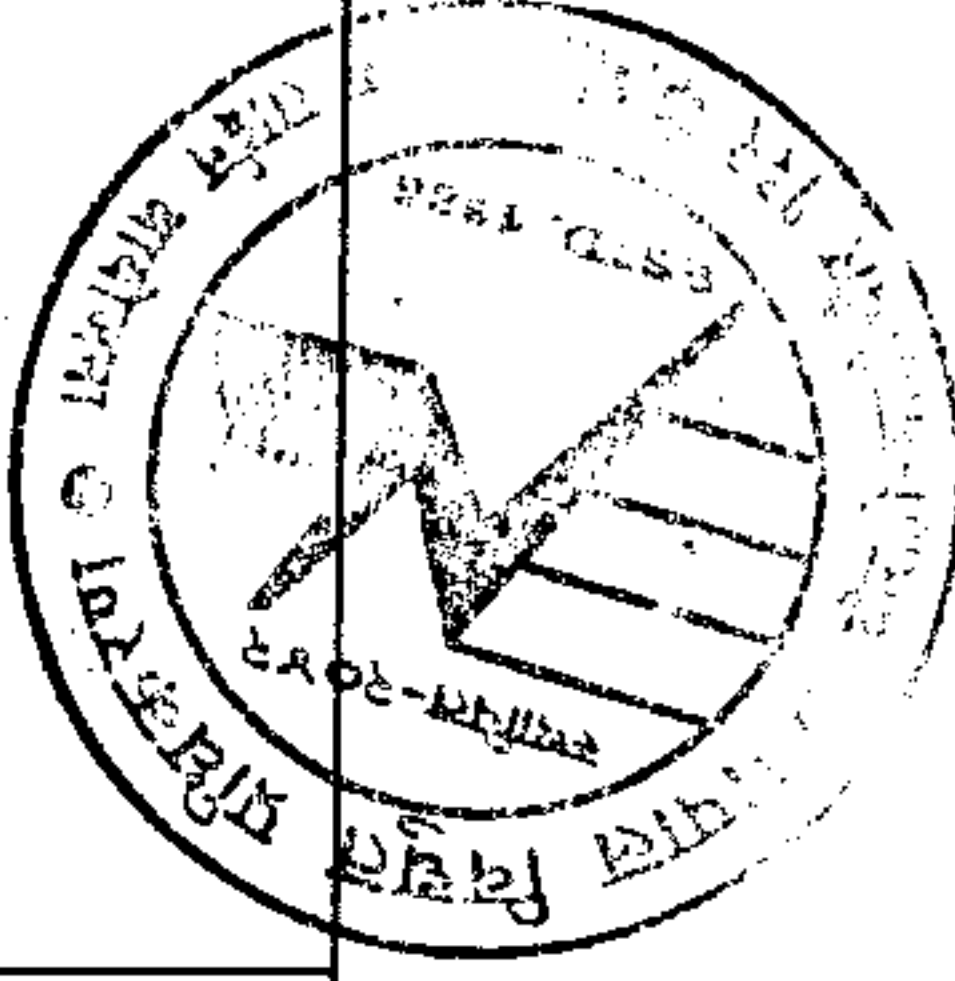
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87	Volume - IIB, Section- 1, Project specification requirement, Clause - 2.3.1, Ghorahi substation	PMDGKMTL_Volume-IIB	We trust that the dismantling of existing road, drain, building and any other structures within th extension area is not in bidders scope for Ghorahi substation. Please confirm.	Please read about this carefully in bid document. If you dismantle anything for your ease, you have to maintain it to original state at your own expenses
88	Volume - IIB, Section- 11, Technical schedule, schedule A3 & section-4, Clause -4.3	PMDGKMTL_Volume-IIB	The range of MSL for the proposed TL is given as 900m -2600m. Please confirm whether, the electrical clearances provided in section 4, clause 4.3 and minimum clearance mentioned in schedule A3, are calculated based on the increased MSL.	Please note from Section-1, the range of MSL for the proposed TL is given as 614m-1845m. Electrical clearances provided in Section 4, clause 4.3 are minimum and shall be applied with altitude correction factor.
89	Volume - IIB, Section- 1, Project specification requirement, Clause - 1.1, Ghorahi substation	PMDGKMTL_Volume-IIB	We wish to inform that the detailed scope of work for Ghorahi substation is not clearly indicated the tender document. We trust that, the following civil works are under bidders scope for the proposed bay extn. 1. Tower and equipment structures along with its foundation 2. cable trench and crossings 3. complete drains system including RCC slab cover 4. site grading with earth filling by borrow pit earth including compaction and levelling etc all to complete for the present bay extension work. 5. crushed rock surfacing including laying of sand and plastic 6. concrete for protection work. Please confirm.	Please follow the bid document carefully and visit site for your clear visualization.
90	Volume - IIA, Section- 7, INSULATOR AND ACCESSORIES, Table 7.1: Annexure 7-B, Basic insulation levels of insulators, clause 2.6.2, Basic insulation levels volume II A, section -2 general technical conditions & Clause- 11.9, schedule A9 Long Rod Polymeric insulators	PMDGKMTL_Volume-IIA	Please confirm the rated Lightning Impulse withstand (dry) as 950kVp as applicable for the project requirement.	Please use 950 kVp
91	Volume- III, schedule- 4a(part I), part - D, Civil works, Khungri substation.	PMDGKMTL_Volume-III	There is a 132KV dead end tower in BOQ. Please clarify if it is used in Khungri substation or Ghorahi substation?	It is obvious, use it at both ends.
92	Volume IIB, section - 02, General Technical Requirement & Volume IIB, section 21, substation equipment datasheet	PMDGKMTL_Volume-IIB	As per TS HV BIL:650kVP/275kvrms; LV BIL:170kvp/70kvrms. But as per datasheet HV BIL:750kvp/325 kvrms; LV BIL:250kvp/95kvrms. Please clarify which one is to be followed	HV BIL:750kvp/325 kvrms. LV BIL:250kvp/95kvrms
93	Volume IIB, section - 02, General Technical Requirement & Volume IIB, section 21, substation equipment datasheet	PMDGKMTL_Volume-IIB	As per TS HV BIL:170kVP/70kvrms; LV BIL:95kvp/28kvrms. But as per datasheet HV BIL:250kvp/95 kvrms; LV BIL:95kvp/28kvrms. Please clarify which one is to be followed?	HV BIL:250kvp/95 kvrms. LV BIL:95kvp/28kvrms
94	Volume IIB, section - 02, General Technical Requirement & Volume IIB, section 21, substation equipment datasheet	PMDGKMTL_Volume-IIB	For 8MVA T/F as per TS oil/Wdg temp. Rise :35/40 ⁰ c. But as per datasheet oil/Wdg temp. Rise :50/55 ⁰ c. Please clarify which one is to be followed?	For 8 MVA Transformer, oil/Wdg temp Rise : 50/55 ⁰ c
95	Volume IIB, section - 02, General Technical Requirement & Volume IIB, section 21, substation equipment datasheet	PMDGKMTL_Volume-IIB	For 8MVA T/F as per TS vector group is Dyn 11. But as per datasheet vector group is YNyn0. Please clarify which one is to be followed?	For 8MVA T/F, vector group is Dyn 11
96	Volume IIB, section 13, Power and control cable.	PMDGKMTL_Volume-IIB	Armouring Details not clarified. Please clarify the same.	Please follow the IS Standard
97	Volume IIB, section 21- Technical schedule.	PMDGKMTL_Volume-IIB	The CB power frequency voltage withstand and lightning shock voltage withstand are 275kV/650kV in the technical document, but it is 325kV/750kV in the parameter table. Which one shall prevail?	Please read this as 325kV /750kV



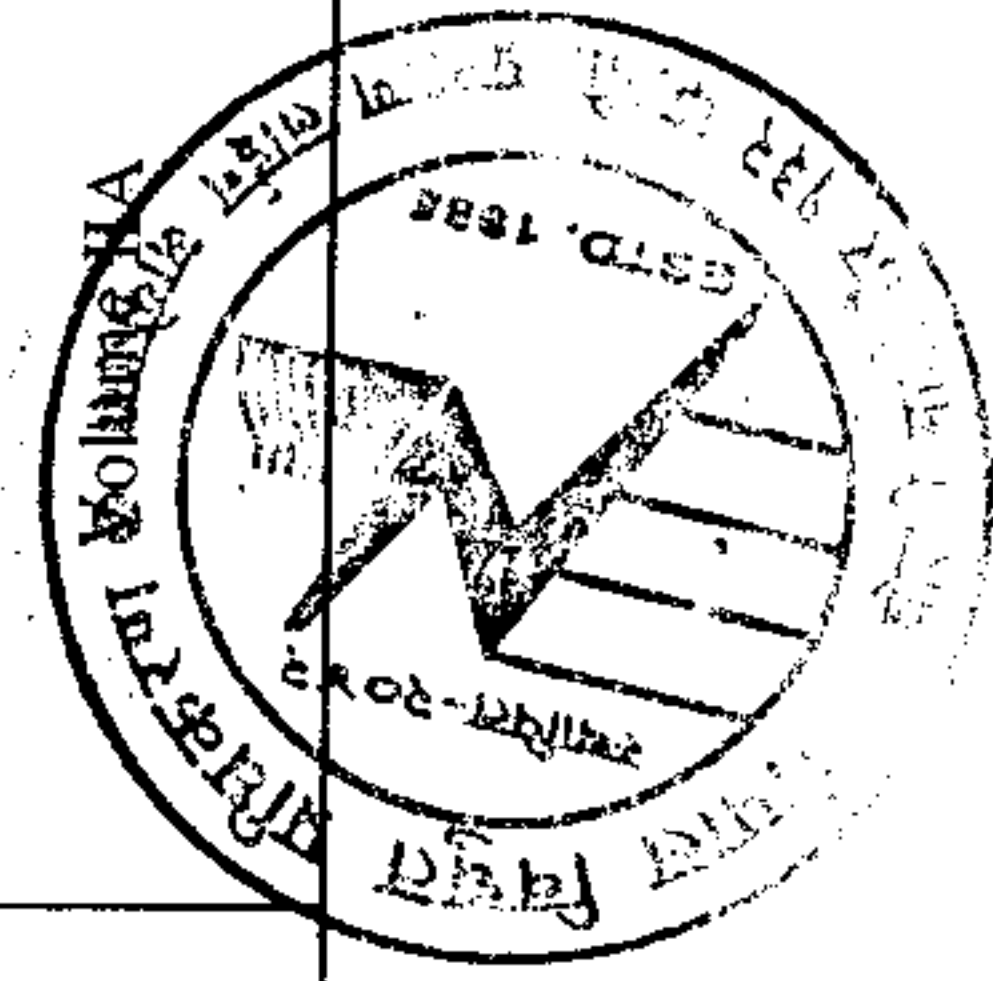
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98	Volume - IIB, section-21, General Technical requirement, Technical schedule.	Creepage distance	A. Values mentioned in GTP: 4650/1300/1300mm B. Values mentioned in Technical specification : 3625/900/900mm	Please read this as 3625/900/300mm
99	Volume - IIB, section-21, General Technical requirement, Technical schedule.	9. vector group/ Distribution transformer	A. Values mentioned in GTP: YNyn0 B. Values mentioned in Technical specification: DyN11	Please follow the bid documents. It is DyN11.
100	Volume - IIB, section-21, General Technical requirement, Technical schedule.	21 a BIL - Power frequency withstand/ Distribution transformer	A. Values mentioned in GTP: Primary -95kV /secondary- 28kV B. Values mentioned in Technical specification : Primary -70kV /secondary- 28kV	Please follow the bid documents. Primary-95 kV/secondary-28kV
101	Volume - IIB, section-21, General Technical requirement, Technical schedule.	21 b Insulation level- Impulse withstand/ Distribution transformer	A. Values mentioned in GTP: Primary -250kV /secondary- 95kV B. Values mentioned in Technical specification: Primary-170kV/ secondary- 95kV	Please read this as Primary-250kV/secondary-95kV
102	Volume - IIB, section-21, General Technical requirement, Technical schedule.	9. Insulation level/ 1321kV SF-6 Circuit Breaker	A. Values mentioned in GTP: impulse withstand - 750kV/ Power frequency-325kV B. Values mentioned in Technical specification: impulse withstand-650kV/ Power frequency -275 kV	Please read this as Impulse withstand-750kV/ Power frequency-325 kV
103	Volume - IIB, section-21, General Technical requirement, Technical schedule.	10. Rated short circuit breaking current/132kV SF-6 circuit breaker	A. Values mentioned in GTP: 25KA B. Values mentioned in Technical specification : 31.5 KA	Please follow the bid documents. It is 31.5 KA.
104	Volume - IIB, section-21, General Technical requirement, Technical schedule.	9. Insulation level/ 33kV Vacuum circuit Breaker	A. Values mentioned in GTP: impulse withstand - 250kV/ Power frequency -95kV B. Values mentioned in Technical specification : impulse withstand - 170kV/ Power frequency -70kV	Please read this as Impulse withstand-250 kV/ Power frequency-95kV
105	Volume - IIB, section-21, General Technical requirement, Technical schedule.	10. Rated short circuit breaking current/132kV SF-6 circuit breaker	A. Values mentioned in GTP: 25KA B. Values mentioned in Technical specification : 31.5KA	Please read the bid documents. It is 31.5 KA.
106	Volume - IIB, section-21, General Technical requirement, Technical schedule.	7. Rated current- Short time for 1 sec/33kV Disconnecting switch	A. Values mentioned in GTP: 25KA B. Values mentioned in Technical specification : 31.5KA	Please read the bid documents. It is 31.5 KA.
107	Volume - IIB, section-21, General Technical requirement, Technical schedule.	7. Rated current- Short time for 1 sec/33kV Disconnecting switch	A. Values mentioned in GTP: 25KA B. Values mentioned in Technical specification : 31.5KA	Please read the bid documents. It is 31.5 KA.
108	Volume - IIB, section-21, General Technical requirement, Technical schedule.	8. Insulation level/33KV Disconnecting switch	A. Values mentioned in GTP: impulse withstand - 250kV/ Power frequency -95kV B. Values mentioned in Technical specification : impulse withstand - 170kV/ Power frequency -70 kV	Please read this as Impulse withstand - 250 kV/ Power frequency -95 kV
109	Volume - IIB, section-21, General Technical requirement, Technical schedule.	4. Enclosure protection class/ 132kV Control & Relay panel	A. Values mentioned in GTP: IP-43 B. Values mentioned in Technical specification : IP-31	Please read this as IP-43
110	Volume - IIB, section-21, General Technical requirement, Technical schedule.	4. Enclosure protection class/33kV Control & Relay panel	A. Values mentioned in GTP: IP-43 B. Values mentioned in Technical specification : IP-31	Please read this as IP-43
111	Volume - IIB - Technical specification of equipments	PMDGKMTL_Volume-IIB	As per the General technical requirement, the system parameters mentioned for Full wave impulse withstand voltage is 750kVp and one minute power frequency dry and wet withstand voltage is 325kV. Even the same is referred for Circuit Breaker, Disconnect Switch, CT, CVT, LA, PI, VCBs and transformer technical specifications too. As per IEC, the Insulation level for the 145kV System Voltage Equipments are of 650/275kv but the values referred are of 170kV System voltage. Please confirm the insulation level for the subject project whether 170kV type tested equipments to be supplied.	Please read this as Full wave impulse withstand voltage is 750kVp and one minute power frequency dry and wet withstand voltage is 325kV



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112	Section 9 – Contract Forms, Appendix 2 - Price Adjustment, Clause No. 1.3	PMDGKMTL_Volume-I	1. For final date for indices, for price adjustment, the same will be governed by 60 days prior to the date of dispatch of different lot, which is committed by the Contractor for various plants in the bar chart (work Schedule) and approved & accepted by the employer at the time of signing of contract agreement. 2. The date of adjustment shall be the midpoint of the period of manufacture or installation of the component or Plant.	Please follow bid documents
113	General	PMDGKMTL_Volume-I	We presume "For final date for indices, for price adjustment, the same will be governed by 60 days prior to the date of dispatch of different lot, which is committed by the Contractor for various plants in the bar chart (work Schedule) and approved & accepted by the employer at the time of signing of contract agreement." to be followed for date of adjustment. Kindly confirm.	Please follow bid documents.
114	Section 9 – Contract Forms, Appendix 2 - Price Adjustment, Clause No. 1.3	PMDGKMTL_Volume-I	As per Clause Indexes to be followed in price variation formula for Transmission Line Tower is LME Indexes. However, considering raw material is being purchased from India, we propose to use IEEEMA Indexes as they are more relevant. Kindly confirm	Please follow bid document
115	Section 9 – Contract Forms, Appendix 3- Insurance Requirements, Clause - (c) Third Party Liability Insurance	PMDGKMTL_Volume-I	Please confirm the 'Parties Insured' for row no 3 of the table provided.	Please follow the bid document as it is ADB's Standard bid document
116	Section 7 - General Conditions of Contract, Clause 37. Force Majeure	PMDGKMTL_Volume-I	We presume COVID-19 is covered under Force Majeure. Please confirm.	Please refer bid documents. In case there will be any change, you will be notified.
117	General	PMDGKMTL_Volume-IIA	In 'kmz' file two routes are shown for transmission line. Please provide revised 'kmz' file with correct route.	It shows possible both routes and bidders shall finalize and propose for approval based on their tower spotting and scheduling after check survey.
118	Taxes & Duties	PMDGKMTL_Volume-I	Please confirm Prices quoted in Schedule No. 3 & 4 shall be inclusive or exclusive of VAT.	It should be exclusive of VAT.
119	4.0 SITE PREPERATION, EXCAVATION, BACKFILL & DISPOSAL OF SURPLUS EARTH.	VOLUME-II-B OF III SECTION-20-GENERAL TECHNICAL REQUIREMENT-CIVIL WORKS	Please provide the following details (if available) for the proposed substation, in order to estimate the quantum of work. 1. Contour survey with spot level and boundary co-ordinates 2. Proposed Finished Ground levels 3. High Flood Level 4. Soil Investigation report	These shall be studied and proposed by successful bidder for approval as provisioned in this Bid
120	General	VOLUME II-B OF III SECTION-20-GENERAL TECHNICAL REQUIREMENT-CIVIL WORKS	We presume that the pile foundation, Rubble soling, Ground Improvement methods or any additional foundation protection works is not envisaged for the proposed Substation. If required the same shall be paid in additional item with mutually agreed rates. Please confirm.	Confirmed but Rubble soling for all structural foundation works is mandatory except ground improvement work.
121	3.1 CONTOUR SURVEY & SITE LEVELLING:	VOLUME II-B OF III SECTION-20-GENERAL TECHNICAL REQUIREMENT-CIVIL WORKS	As per referred clause, it is mentioned that "The contractor will level the area required for construction of substation work either at single level, multi-level or gradual slope with the finished ground level as approved by NEA during detailed engineering based on highest flood level." Please specify the proposed Finished Ground Level for Proposed Substation area, in order to estimate the land development quantity and founding depth.	Please note that Substation is not located in flood zone and there is no significance of flood level. NEA has assessed the finished level based on preliminary study but bidder is free to propose the best finished level after survey.
122	Section 4 &5 4.5.2		As per section 5, Isolated identical footings shall be provided for each leg of the tower. However, being narrow based towers, isolated foundations may not be feasible. Please confirm if combined footing (raft foundation) can be adopted with benching if required	Confirmed in case soil bearing capacity after soil test demands raft foundation. But you have to consider both raft for levelled ground and isolated for unequal footing in hilly terrain.



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123	Section 4 4.3	Volume IIA	The range of MSL for the proposed TL is given as 900m-2600m. Please confirm whether the electrical clearances provided in , Section 4, clause 4.3 and minimum clearances mentioned in schedule A3, are calculated based on the increased MSL.	Please note from Section-1, the range of MSL for the proposed TL is given as 614m-1845m. Electrical clearances provided in Section 4, clause 4.3 are minimum and shall be applied with altitude correction.
124	Section 4 4.5.3	Volume IIA	The clause mentions that ".....Ice load shall not be considered for design of towers." However in Section 4, Cl:4.5.3, sag tension tabulation also includes ice loading. Please confirm if ice loading to be considered for design of towers. If so, please provide the thickness and density of ice, temperature and wind pressure to be considered for ice loading.	Section 4, Cl:4.5.3, sag tension tabulation clearly shows mill ice loading. No need to consider ice loading.
125	Section 11 Schedule 3-Design services	Volume IIA	Design Parameters for design of DA type tower (suspension) are provided in the schedule. However, in Vol-III, Schedule No. 3: Design services, design of DA type tower and its foundations are not included. Hence, it is understood that, design of DA type tower need not be done at execution stage. Please confirm.	Confirmed.
126	Section 11 4.6.3	Volume IIA	The clause mentions that "Suspension Tower (0 deg - 2deg) (DA) Any two phases broken on the same side and same span or anyone phase and one ground wire broken on the same side and same span whichever combination is more stringent for a particular member." However as per IS 802 part 1/sec 1, for suspension towers, "Any one phase or groundwire/OPGW broken, which ever is more stringent for a particular member" is to be considered. Please confirm.	We understand both will lead to same result. Confirmed.
127	Section 4 4.4	Volume IIA	The clause mentions that ".....The special tower with deviation angle more than 60° or Leg extension greater than +9 meter and up to +18 meter shall be treated as DF Tower." Hence, under stand that. DF tower is to be designed with 60 to 90 deg deviation with maximum body extension of +18m. Leg extension combinations are not envisaged for DF tower. For extensions above 9m, design shall be done by considering reduces span. Please confirm the same	We have not envisaged the use of DF tower but incase needed it is confirmed except your understanding for reducing span Span shall be actual span wherever and whenever needed.
128	Section 4 4.9	Volume IIA	The minimum thickness of sections mentioned cl: 4.9, varies with the values provided in Section 11, Schedule A8. Please confirm the minimum thickness of sections and gussets to be considered in design.	Please follow Section 11, Schedule A8 but in no case this shall contradict to IS Standards
129	Section 5 Cl:5.2	Volume IIA	In the clause, it is mentioned that, " The base slab in RCC foundation may be single stepped or uniform. The design of concrete foundation shall be done as per Limit state method of design given in IS: 456". In the typical drawings DWG012, stepped foundations without chamfering has been indicated for 132kV Towers. Please confirm, if two stepped foundations, with chamfering can be considered for design if found to be economical.	Confirmed.
130	Section 5	Volume IIA	Please confirm whether, foundation drawings with undercut shall be provided for Dry/wet/submerged fissured rock. The minimum size of undercut shall be 150mm. CBIP manual PB no:n 323 also, mentions regarding usage of undercut foundations. If undercut can be considered, please provide the angle of repose and unit weight of fissured rock to be considered in design.	Confirmed but angle of repose shall be taken from soil test report which is under the scope of this bid.
131	Section 14 TOWER OUTLINE DRAWING	Volume IIA	Understand that, the outline diagram for 132kV tower is indicative only. The dimensions and patterns shall be as per the actual calculations based on technical specifications/relevant codes/vendor details for conductor/OPGW/insulators. Please confirm	Confirmed but actual calculations later subject to approval from employer
132	General		Please confirm, if preliminary design documents pertaining to 132kV Towers are to be submitted along with the bid.	not needed but you can do your own assessment.
133	Section 11 Schedule A6	Volume IIA	Complete insulator strings and fittings on minimum breaking load of insulator shall be 3.3. Please confirm.	This is minimum factor of safety.

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134	Volume-1 / Section -2 "General Technical Requirement" / Clause No 4.6.1 "System Parameter" / SI No. 8 "Minimum Creepage Distance 25 mm/kV)" & Clause no. 4.6.3	PMDGKMTL_Volume-I	Clause 4.6.1..... 132kV – 4650 mm 33kV – 1300 mm 11kV – 1300 mm Clause 4.6.3..... 132kV – 3625 mm 33kV – 900 mm 11kV – 300 mm As per clause no 4.6.1, minimum creepage distance is indicated as 4650mm, 1300mm & 1300mm (for 132kV, 33kV & 11kV respectively) which is not matching with the requirement (i.e. 25mm/kV) For individual item parameters in Clause no 4.6.3, the creepage distance requirement is indicated as 3625mm, 900mm & 300mm (for 132kV, 33kV & 11kV respectively) which is matching with the requirement (i.e. 25mm/kV) Please confirm the required creepage distance.	Please read this as: 132kV – 3625 mm 33kV – 900 mm 11kV – 300 mm
135	Volume-1 / Section -3 "Evaluation and Qualification criteria" / Clause No 2.5 / 1. "Power Transformer (132 kV or higher voltage class)"	PMDGKMTI_Volume-I	The said clause indicates the requirement for 33kV Transformer, however as per the "Description of Item" column, the qualification requirement is applicable only for 132kV and higher rating transformers. Accordingly, we understand that no qualification document (including type test) is required for 33kV Trans-former. Please confirm.	Please follow bid document.
136	ITB 19.1 (c)/ Section-2/Vol I	PMDGKMTL_Volume-I	As per BDS, bidder may quote the expenditure of Design, Installation & other services in either foreign currency and/or local currency. However, in price schedule, there is no provision for foreign currency. We request you to revise the price schedule accordingly.	Please follow bid document.

Notes:

- 1) We have omitted the irrelevant and all queries giving suggestions to change provisions in bid documents and specifications. Please refer to present bid documents firmly rather than suggesting for changes at this stage. And for site visit related queries, please visit the site rather than putting queries.
- 2) Please find the missing specifications for DG set uploaded together with this Clarification-I.

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