



**CLARIFICATIONS FOR 5140400-04 – SUPPLY AND INSTALLATION OF PRIMARY SUBSTATIONS (PHASE 1) -
DESIGN-BUILD FOR KORLE-GONNO, KOTOBABI, KANDA & LEGON**

BID REFERENCE: 5140400-04/IFB/CB/03/19

Sl	Ref	Question	Answer
1	Part 2 Section v	<p>The Google drive link inside the IFB is not probably working, can't open it.</p> <p>https://drive.google.com/open?id=1-NpVYVLunNoJcKVxAmTlyNT9v3odl9e</p>	<p>The person/bidder should use the google link below:</p> <p>https://drive.google.com/drive/folders/1CIUWvCX_x2OeDuzHKChxv-3pt2vjbfe?usp=sharing.</p> <p>Copy the link into Google Chrome browser.</p>

2	General	I do not see the actual registration application	Since you have expressed interest in this project and has requested for the bidding document, you are duly registered.
3	General	How do I register and what is the cost of registration?	MCC do not charge any fees for registration
4	Part 1 Section iv	I cannot see any bill of quantities / price schedules.	Copy the link below and paste into google chrome: https://drive.google.com/open?id=1-3OstvZ3zsN2JgFfvaAxf017VHVTtMm3
5	General	The attached document has a different Reference Number and with that of the email subject	The correct reference number is the one on the attached document which is :5140400-04/IFB/CB/03/19
6	General	The link that you have attached below to download additional documents – Do they refer to the Tender as referenced in the subject line or do they refer to the Tender that was attached.	The link is additional document for the attached tender. That is 5140400-04/IFB/CB/03/19
7	Appendix 3	Appendix 3 which is the Price Schedules is not included	Copy the link below and paste into google chrome: https://drive.google.com/open?id=1-3OstvZ3zsN2JgFfvaAxf017VHVTtMm3
8		Kindly provide us the approved Single Line Diagram for ACDB/DCDB Feeder details for all the substations.	Copy the link below and paste into google chrome: https://drive.google.com/open?id=1-3OstvZ3zsN2JgFfvaAxf017VHVTtMm3
9	Appendix 3	Clarify if we should submit Lot 1 and Lot 2 as separate tenders or should be submitted as one document?	The tender forms should be filled and submitted separately in respect of each Lot.

10	Payment	We intend to request payment through a letter of credit for schedule 2 items supplied from abroad. We cannot find confirmation in the document of the payment terms. Can you please confirm that the above method of payment will be acceptable to MIDA?	Letter of Credit shall not be acceptable. Only direct transfer will be used.
11	Section III - Qualification and Evaluation Criteria: 3.4.1 & 3.4.2- Experience - Design	Please clarify whether Bidder can demonstrate the Experience in Transmission Line Projects and EHV AIS Substation Projects (132 kV and 220 kV) executed in last 10 Years to qualify for Experience in Design and if yes how many projects are required to be shown.	This Criteria call for experience in the design of substations; Please comply.
12	Section III - Qualification and Evaluation Criteria: 3.4.3- Specific Experience - Design	Clarify whether Bidder having experience in Indoor Medium Voltage Substation of 33 kV Voltage Rating only, will be considered for the experience in 11 kV Indoor Medium Voltage Substation.	Experience in 33kV and 11kV shall be considered equivalent.
13	Section III - Qualification and Evaluation Criteria - 3.5.2 - Similar Experience - Construction	Please clarify whether Bidder can demonstrate the Experience in EHV AIS Substation Projects (132 kV and 220 kV) executed in last 5 Years to qualify for Experience in Construction.	The Criteria call for experience in design and construction of substation with indoor switchgear; Bidders should comply with this requirement.
14	Schedule of Prices	The quantities given in the Schedule of Prices are estimated and provisional and are given to provide a common basis for bidding. Then please clarify if there is revision in the quantity at execution stage what will be the acceptable percentage revision.	There will be not revision of quantities as this is a Design and Build contract. Bidder should establish the actual quantities from their Design and cost for the requirements.
15	"Volume IIA - Employer's Technical Requirement - Chapter 1 - Clause 2.4 - Project Schedule - Table 1 AND	As per the Table 1 of Clause 2.4 - Project Schedule the Commencement of Work is 28 days after Contract Award whereas Instruction to Bidder - Clause 43.1 mentioned that the Commencement Date shall be agreed between the successful Bidder and the Employer but shall be within forty-two (42) days after the Contractor receives the Letter of Acceptance issued	Commencement date is as per FIDIC form of contract. Refer to Clause 8 for Commencement Date Commencement of execution of the Works.

	ITB 43"	<p>by the Employer.</p> <p>Please clarify the exact definition of Commencement date.</p> <p>Also, please confirm that, commencement date should be after handing over of hindrance-free land by MiDA - please clarify.</p>	
16	"Payment Terms Appendix to Letter of Financial Offer - Clause 14.6"	<p>As mentioned in the Clause Minimum amount of an Interim Payment Certificate shall be: 2.5% of the Contract Price, with no more than 1 submission per month. Please clarify what is the milestone for the payment against supply i.e. Payment of supply of equipment will be made against the presentation of Bill of Lading along with Invoice OR after receipt of material at site.</p>	<p>Payment of supply of equipment will be made against delivery of equipment on site.</p>
17	BDS: ITB Clause No. 15.3	<p>As per the clause in BDS, the Bids are invited for Individual Lots.</p> <p>In case a bidder is trying to participate in both Lots. Please confirm if Bidder can submit the same qualification Credentials (Experience and Performance Certificates) for both the lots, i.e. Lot-1 and Lot-2.</p>	<p>The tender forms should be filled and submitted separately in respect of each Lot.</p>
19	ITB 5.5 Government-Owned Enterprise	<p>Could you please clarify and kindly inform us whether CMEC as a Government-Owned Enterprise in China is eligible to compete for the aforementioned project?</p>	<p>Government-Owned Enterprises ("GOEs") are not eligible to compete for MCC-funded contracts for goods or works. Accordingly, GOEs may not be party to any MCC-funded contract for goods or works procured through an open solicitation process, limited bidding, direct contracting, or sole source selection.</p>
20	Sub-Clause 14.2 Advance Payment of PCC	<p>1. PAYMENT CONDITIONS:</p> <p>a) Kindly clarify exactly which are the payment conditions under this project, as the only term duly defined is the advance payment (15%) And</p>	<p>Total advance payment shall be Fifteen percent (15%) of the Accepted Contract Amount less Provisional Sums and shall be payable in the currencies and proportions in which the Accepted Contract Amount is payable and shall be certified</p>

		the other terms for imported equipment and local services (civil works and erection)? With FOB or CIP supply? With provisional Acceptance?	by the Engineer
21	Clause no:5.16 & Technical data schedules	There is discrepancy in BIL levels wrt system Design Requirements, Outdoor equipment & Indoor Specification and Technical data schedules for both 33kV & 11kV Voltage levels. Please clarify whether the BIL values of 33kV & 11kV voltage level according to IEC 60071 shall be considered for all outdoor & Indoor equipment Please confirm the below BIL values: a) 33kV equipment (33kV) : 170kV/70kV b) 11kV equipment (11kV) : 95kV/28kV	The following BIL values shall apply: a) 33kV equipment (33kV) : 170kV/70kV b) 11kV equipment (11kV) : 95kV/28kV
22	Clause no:5.16 & Technical data schedules	As per Specification and Technical data schedules BIL values for 11kV Voltage levels refers 95kV/38kV. According to IEC 60071 this above value indicates 17.5kV voltage level. Please clarify the supply of switchgear shall be 12kV or 17.5kV	The supply of switchgear shall be 36kV and 12kV and the BIL values shall be as follows: a) 33kV equipment (33kV) : 170kV/70kV b) 11kV equipment (11kV) : 95kV/28kV
23	Clause No.- 6.1.3.2, Pg no 147	As per specification Cl. 6.1.3.2 calls single busbar arrangements for 33KV indoor switchgear. Whereas in specification Cl. 6.1.3.6 and Technical data schedule indicates double busbar arrangements. Please clarify.	Single Busbar is required.
24	Clause No.- 6.1.3.2, Pg no 148	As per specification 33KV indoor switchgear shall be either air or GIS. Where as in Technical data schedule indicated as 33KV indoor GIS switchgear. Please confirm type of 33kV Panel.	33KV indoor switchgear shall be GIS (SF6) as per TDS

25	Schedule 2, Item 2.2.2 & 2.2.3	As per specification Cl: 3.2, 11KV Nominal current rating 2500A for Incomer & Bus sectionalizer. Where as in Price Schedule rated Normal current of 2000A for Incomer & Bus sectionalizer. Please confirm the current rating for Incomer & Bus sectionalizer.	<p>Use the following for 11kV Nominal Current rating as per the Single Line Diagram:</p> <table border="1" data-bbox="1230 175 1927 383"> <thead> <tr> <th>Substation</th> <th>Incomer (A)</th> <th>Bus Section (A)</th> </tr> </thead> <tbody> <tr> <td>Korle Gonno</td> <td>2500</td> <td>2500</td> </tr> <tr> <td>Kanda</td> <td>2500</td> <td>2500</td> </tr> <tr> <td>Kotobabi</td> <td>2500</td> <td>2500</td> </tr> <tr> <td>UGTH</td> <td>2000</td> <td>2000</td> </tr> </tbody> </table>	Substation	Incomer (A)	Bus Section (A)	Korle Gonno	2500	2500	Kanda	2500	2500	Kotobabi	2500	2500	UGTH	2000	2000
Substation	Incomer (A)	Bus Section (A)																
Korle Gonno	2500	2500																
Kanda	2500	2500																
Kotobabi	2500	2500																
UGTH	2000	2000																
26	Technical Schedule: Item 18.4	Data As per technical data schedule transformer tapping range indicates +9.31/-10.6 % in steps of 1.33% (15 Steps, 16 Position). We presume that that the tapping range should be +9.31/-10.64 % as the % of steps is 1.33. please confirm	Please design for (15 Steps, 16 Position) as appropriate															
27	Technical Schedule: Item 18.4	Data There is discrepancy in tapping range between specification and technical data schedule. Specification cl. 6.2.3.3 refers +9.33% to/-10.66% whereas technical data schedule indicates +9.31/-10.6 %. Please clarify	Please design for (15 Steps, 16 Position) as appropriate															
28	Technical Schedule:	Data As per Single line diagram & Specification Current transformer rated burden as 5P20, 20VA. Whereas Technical Data Schedule specified as 10P20, 20VA. Hence please clarify.	Please use as per Single Line Diagram															
29	Drg no:PMC-5091019-PSS-KG-E-103	The 110V & 48V Battery capacity is mentioned 200Ah in Auxiliary AC/DC single line diagram. Specification and Price Schedule doesn't call for any specific value. Please clarify whether 200Ah battery shall be considered for estimation and any change in capacity during detail engineering shall be considered as variation quantity?	Use Battery Capacity of 400Ah for both 110V & 48V															

30	Clause no: 6.27.3 Page no:410	As per specification float charging voltage for battery shall be 1.42 V/cell. Whereas in technical data schedule indicates 1.40V/cell. Please clarify whether we consider 1.40V/cell or 1.42V/cell.	Please use 1.42V/Cell
31	General	Please confirm the type of 33kV & 11kV surge arrester shall be either indoor or outdoor.	They shall be Indoor
32	Specification clause no:6.3.3.5 Page no:224	As per Technical data schedule, vector group of the 100kVA Auxiliary transformer calls for Dyn11. Whereas Specification indicates Dyn1. Please clarify the discrepancy.	Please use Dyn11
33	General	Please confirm the route length for 33kV & 11kV outgoing feeder cable between Panel & Terminal Pole.	Outgoing cables are not part of this contract. Refer to clause 6.1.3.10
34	Specification clause no:6.18.3 Page no:356	As per specification conductor size indicates 300 mm ² Copper and 240 mm ² Aluminium for Transformer incomer and Distribution Feeders. Whereas single line diagram for Korle-Gonno, Kotobabi and Kanda refers 500 mm ² Copper and 400 mm ² Aluminium. Please clarify the size and type of conductor either copper or aluminium.	Please use as per Single Line Diagram as follows:- <u>Transformer Incomers</u> <ul style="list-style-type: none"> • 300mm² Cu for UGTH • 500mm² Cu for Korle-Gonno, Kotobabi and Kanda <u>Feeders</u> <ul style="list-style-type: none"> • 240mm² Al for UGTH • 400mm² Al for Korle-Gonno, Kotobabi and Kanda
34	General	Please furnish the technical data schedule for 630 mm ² , 400 mm ² , 300 mm ² and 240 mm ² .	TDS for 300mm ² Cu is attached. 630mm ² and 240mm ² are not in this scope
34	Clause No.- 5.16, Pg no 137	Kindly confirmed the Creepage 25mm/kV or 31mm/kV for proposed substation in Lot1 & Lot2.	Please use 31mm/kV

35	ITB 1.2	<p>In the Bid Data Sheet, it's mentioned the following:</p> <table border="1" data-bbox="478 207 1199 683"> <tr> <td data-bbox="478 207 611 683">ITB 1.2</td> <td data-bbox="611 207 1199 683"> <p>The name, identification, and number of Lots of this procurement are:</p> <p>a) 5140400-04/IFB/CB/03A/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Korle-Gonno and Kotobabi.</p> <p>b) 5140400-04/IFB/CB/03B/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Kanda and Legon.</p> </td> </tr> </table> <p>We believe that the correct Lot Identification for item b) must be 5140400-04/IFB/CB/03B/19; Contract Lot 2 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Kanda and Legon and not Lot 1. Please confirm</p>	ITB 1.2	<p>The name, identification, and number of Lots of this procurement are:</p> <p>a) 5140400-04/IFB/CB/03A/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Korle-Gonno and Kotobabi.</p> <p>b) 5140400-04/IFB/CB/03B/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Kanda and Legon.</p>	<p>The name, identification, and number of Lots of this procurement are:</p> <p>a) 5140400-04/IFB/CB/03A/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Korle-Gonno and Kotobabi.</p> <p>b) 5140400-04/IFB/CB/03B/19; Contract Lot 2 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Kanda and Legon.</p>
ITB 1.2	<p>The name, identification, and number of Lots of this procurement are:</p> <p>a) 5140400-04/IFB/CB/03A/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Korle-Gonno and Kotobabi.</p> <p>b) 5140400-04/IFB/CB/03B/19; Contract Lot 1 - Supply and Installation of the Primary Substations (Phase 1) - Design-Build for Kanda and Legon.</p>				
36	In the transformer specification Item 6.2.3.2	<p>In the transformer specification Item 6.2.3.2 "The transformer may be overloaded during emergency up to 200% of its continuous rating in accordance with IEC Publication 60076-7. Bushings tap changer and other current-carrying parts shall be designed for this condition." Means that the tap changer rated current would 2 times at rated current. It is OK for 26MVA but for 39MVA current would be $39000/33/3*2=787.9A$. ABB UZE maximum current is 600A, so it's out of ABB's OLTC scope</p>	Please provide as per the specification		

37	Item 6.2.3.11	<p>The tap changer shall be of the knapsack design, e.g., ABB type UZE or equivalent. Contractor may offer other alternatives in addition to the knapsack type for consideration.</p> <p>A Priced Option for an in-tank vacuum tap changer design should be provided, with the Vacuum Tap Changer used having at least 10 years' experience in use in the utility industry.</p> <p>Normally OLTC current design is times 1.2 based on rated current. For 39MVA power transformer the current value would be $39000/33/3 \times 1.2 = 472.7A$, so OLTC 500A enough for normal design.</p> <p>Which current value 500A or 800A would be chose for the 39MVA power transformer? If 800A, would be use three single phase OLTC for one-unit transformer?</p>	Please provide as per the specification
38		The 33-kV switchgear must be GIS type, or AIS is acceptable?	GIS (SF6)
39	Drwg no: PMC-5091019-PSS-KG-E-101	As per SLD, Distance protection (21) is asked for, whereas requirements /tech specification are not provided. Please clarify whether Distance protection to be considered for 33KV feeders	Please find further information for Distance Protection per Link below: http://bit.do/PSS-CLARIFICATION-FURTHER-INFO
40	Clause Pg no 19 no:1.5	As per scope of work 33kV and 11kV energy metering equipped with switchgear whereas electrical layout shows separate panel. Please clarify.	The Metering panels are separate as per the scope and lay outs

41	Clause no:6.15.2 Pg no 328	Technical specification states that Local control from mosaic/control panel. If required, please furnish Technical spec/requirements	Please follow the specification Section 6.15.2
42	Clause no:6.15.2 Pg no 328	Please clarify supply of 33kV & 11kV mosaic/control panel shall be either separate panel or within the switchgear. If within the switchgear also confirm with or without mosaic tiles.	Please follow the specification Section 6.15.2
42	Clause no:6.17.3 Pg no 347	Can we consider other than ABB, SEL, Siemens or ALSTOM (NOW GE) for SCADA Gateway systems and equipment?	Please provide as per the specification
44	Clause no:6.15.8 Pg no 337	As associated equipment and metering systems may be procured from different sources/ different Countries, conducting FAT on total SAS system with combining measurements & controls at SAS manufacturer's location is not feasible due to logistics and Customs formalities. Please consider SAS system eqpt and accessories alone for FAT and total system testing under SAT (Site Acceptance Test)	Please provide as per the specification
45	Clause no: 6.30.7 Pg no 435	As per specification supply voltage of AC distribution board indicates 415/240 V. Whereas Price schedule and distribution SLD calls for 400/240 V. Please clarify.	As per specification 415/240V
46	Equipment Layout plan –PMC-5091019-PSS-KG-E-102	Switchgear Room Size is not adequate for 33 kV GIS & 11kv AIS Panel even with the smallest width panels. The dimension vary as per vendor hence we have to consider the dimension as per largest width. We are submitting one typical layout as per our clause.	The bidder shall design a building that is fit for the purpose.

47	Single Line diagram –PMC-5091019- PSS-KG-E-101	PT section scheme is required or not? Please confirm	Required
48	Price Schedule Item No -2.1.1 & 2.2.1	33kV and 11kV Outgoing termination kits are not mentioned in price schedule. Please confirm if it is covered in other package	Included as described in the clause 2.1.1 & 2.2.1
49	Price Schedule Item No -2.4.1	33 kV Station Transformer cable termination is not considered in price schedule. Please confirm	Please include transformer cable termination kits on Item 2.4.1
50	Single Line diagram –PMC-5091019- PSS-KG-E-103. Specification- 6.26.3 product design	Battery Size (Amp Hour rating) is not clearly mentioned in Specification & GTP. But in SLD it is mentioned 200Ah @ 10hour	Please use 400Ah @ 10 hour
51	Single Line diagram –PMC-5091019- PSS-KG-E-103. Specification – 6.27.3	Each Battery charger should have independent supply. No meaning of providing common AC supply to two Charger units	Please provide independent supply
52	Equipment Layout plan–PMC-5091019- PSS-KG-E-102	Battery Room size is not Adequate for both the battery sets.(110V & 48 V)	The bidder shall design a building that is fit for the purpose.

53	Price Schedule item No – 2.3.1	Power Transformer will be outdoor type Bushing or Cable end Box. Layout drawing shows Cable End type. In case of cable end boxes where do we have to connect the lightning arrestors, please confirm	Please do not provide Surge Arresters on the transformer
54	Specification – 6.2.3.13 Page No 198	In power transformer specifications, requirement of gas in oil motoring is mentioned. Please confirm whether it is only monitoring or gas analyzer with motoring and diagnostic is required. Also, specifications of gas motoring system is not clear. Whether it is single gas analyzer or multi gas analyzer. Please confirm.	Gas in oil monitoring
55	Specification – Page No 269	Please confirm whether independent fault recorder is required	Please provide as per the specification
56	Price Schedule item No – 2.11	HT (CU) Cable Termination kits for 33 & 11kv 1cx500sqmm & 33 & 11kv 1cx300sqmm not mentioned in the price schedule. Only incoming & outgoing cable terminations are given in price schedule. Please confirm CU cable termination is it our scope or not?	Please include in Price Schedule Item No. 2.1.2 & 2.2.2
57	Price Schedule item No – 2.11.1	11KV AIS termination kits are specified as plug in type. Generally, manufacturers not provide plugin type.	Please meet the requirement of the specifications
58	Single Line diagram – PMC-5091019-PSS-KG-E-101.	Relay provided to 100 kVA Station transformer will not serve any purpose as the feeder is provided with fuse.	33kV Station transformer bay equipped with 25/5A current transformer with 1250A , SF6 Breaker, busbars and busbars connections complete with all control, metering and protection equipment along with all accessories as per requirements of the volume II and as deemed necessary and required by the Engineer.

59	Single Line diagram – PMC-5091019-PSS-KG-E-101.	What is the purpose of providing the tri-vector meter on the Bus section panels?	Please meet the requirement of the specifications
60	Price Schedule Item No -2.3.2	NGR connection by conductor or by Cable Is not defined Please confirm	Cable connection
61	Earthing for 33 kV Switchgear panel Specification – 6.1.3.9 page 162	<p>The drawing indicates following type of earthing switch arrangements in the 33kV SLD</p> <p>Bus isolators for Feeders are without ES.</p> <p>Bus isolator for the Bus coupler panels is with ES on Bus side. Line side / Cable side isolators are with ES. Please confirm whether the earth switches are Manual type or Motorized. The Earth switch on the bus side for the isolator on Bus Coupler feeder must have interlocking to avoid wrong closing of the ES when bus is live. This is very important. pl confirm .</p>	<p>Motorized Isolator with earth Switch as per Single Line Diagram Interlocking confirmed.</p>
62	Earthing switches in 11kV Panels	<p>In 11kV Panel the earth switch is shown on the feeder side, cable side. Instead of permanent earth switch we propose that withdraw able earthing trunk Panel shall be provided one for each bus section.</p> <p>Similarly, the earth switch is shown on the bus coupler panel on the bus side. We suggest that the instead of permanent earth switch, removable earthing truck with earth switch on bus side shall be provided</p> <p>The earth on the bus side shall be carefully provided in the designs.</p>	Please meet the requirement of the specifications

63	Switchgear Room	Entry to the basement floor has been shown from the outside which is not advisable. It will call for water accumulation, security problems, unauthorized use of the place etc. Please check and correct. This will increase the overall area of the control pl confirm.	This is end-user (PDS) request for Emergency Purposes. Contractor will design so as not to accumulate water. See Dwg. No. A-106 for details.
64	Employer's Requirement	The detail BBQ (bill of quantity) is not available in the documents, kindly provide same.	The BOQ is in the Price Schedule (This is design and build contract)
65	Employer's Requirement	The details of drawing is not available kindly, provide same.	Details of all the Drawings are available.
66	Breaker and Transformer Outdoor	The substation type to clear as indoor Breaker and Transformer Outdoor or as , kindly specify	Please provide as per the specification
67	GIS Substation	Breakers mention as SF6 is this a GIS Substation, please clarify.	33kV Breaker is SF6 Insulated
68	ITB 1.2	After going through the bid documents, we would like some clarification about the bidding process: - Can a bidder submit 2 bids for both lots or must he submit only one bid for only one lot?	Multiple and combinations of Lots and discounts are not permitted within this Project package and will be evaluated on the basis of a Contract Lot and not a combination of the two (2) Contract Lots.
69	ITB 15.3	- Can a bidder be awarded both lots and only one lot?	Bids are being invited for individual Lots
70	Qualifications Requirements and the EXP Forms	We noticed some discrepancies between the criteria for the forms and the forms: - Discrepancies between EXP forms (Page 51 up to 59): EXP 1 to 5 for design and 1 to 5 for construction are required while in Ref-2 (Page 91 up to 99) EXP 1, EXP 3 and EXP 5 are for design and	Please realign Qualifications Requirements to the EXP Forms as follows: EXP-1: General Design Experience EXP-2: Similar Design Experience EXP-3: Specific Design Experience EXP-1: General Construction Experience EXP-2: Similar Construction Experience

		EXP 2, EXP 4, and EXP 6 are for construction. Please clarify which are the correct numbers for the design and construction forms	EXP-3: Specific Construction Experience EXP-4: Environmental and Social (E&S) Management Experience EXP-5: Health and Safety (H&S) Management Experience
71	Section VII, Particular Conditions of Contract, Sub-Clause 18	In the Section IV, Technical and Financial Offer Bid Forms, Clause 18.3) Insurance against injury to persons and damage to property, we can read: Limit per occurrence shall not be less than: US Dollars 25000.00 per occurrence, with the number of occurrences unlimited In the Section VII, Particular Conditions of Contract, Sub-Clause 18.5) Requirements for Professional Liability insurance, we can read: The contractor shall effect and maintain professional liability insurance in an amount no less than the total liability of the contractor to the employer calculated in accordance with sub clause 17.6 (Limitation of Liability) If we can provide a local professional liability policy in the amount of USD 1 000 000, and a Civil Liability policy "due to the work" in the amount of USD 1 000 000: Is it appropriate? Is it consistent with the contractual requirements mentioned in clauses 18.3 and 18.5?	Please comply with the requirements
72	Sewage Line	What is the pipe size of the sewage line?	560 mm diameter
73	Drawings	What is the content of the 300 mm diameter steel pipe line that runs parallel to the east boundary and the pedestrian walkway at the road edge?	Water. Per Dwg. No. PMC-5091019-PSS-KG-C-102, it's not 300 mm. It's 330 mm diameter steel pipe.

74	Topographical Data	The contours in the topographical data does not represent what is on the ground. To be verified and confirmed	We disagree that the contours do not represent what is on the ground. Use Dwg. No. PMC-5091019-PSS-KG-C-102 as the reference for existing topographical conditions at the site.
75	Substation Design	Will the existing ECG Distribution substation be incorporated in the proposed substation design?	No
76	Lot N°1 and N°2	Please tell us which paragraph about "Cube Compressive Strength" we should consider.	Please note that we have Cube Compressive Strength for the Section on "Design of concrete mixes" (pages 493 - 495 of file "Vol-II_Primary substation_Final_clean copy 240119") and Cube Compressive Strength for section "Quality control of concrete during work progress (pages 501 – 503, same file).
77	Design of concrete mixes	If it's the first paragraph according to the question below. Please confirm that for each grade of concrete, six 150 mm cubes shall be made from each of the first three consecutive batches. If not, please clarify that. And please specify the frequency.	For the section on "Design of concrete mixes", six (6) 150 mm cubes shall be made for each of three (3) consecutive batches. This shall be done until the trial mix has been approved.
78	SI 80	If it's the second paragraph, please specify the mix approbation conditions.	From SI 80, of the 6 cubes prepared, 3 shall be tested at age of 7 days and the remaining 3 shall be tested at 28 days.
79	Design of concrete mixes	Please confirm that the compressive strength at 7 days shall be equal or more than 75% of the Characteristic compressive cube strength at 28 days.	Not confirmed. See 3 rd paragraph, b) Cube Compressive Strength of Section "Design of concrete mixes"
80	Target Mean Strength	Please confirm that the compressive strength to be used in the different calculations is the "Target Mean Strength".	See SI 82.

81	Drawings	Please specify the width, thickness and type of the concrete roads and pavement, since it's not the same between the price schedule, the scope of works and the drawings.	The width of the roads in the drawing shall govern. Internal roads shall be 80mm, 50N/mm ² concrete paving blocks on crushed stone base and gravel sub-base. Roads from gate to nearest existing road shall be 50 mm thick bitumen.
82	Equipment Layout Plans	KORLE GONNO SUBSTATION: Please clarify if the manholes for the rerouting of sewerage line in the equipment layout plans are existing.	See Item 21 of Sec. 3.2.4 of Vol-II_Primary substation_Final_clean copy 240119.
83	Septic Tanks Volume	Please give us the septic tanks volume or the number of persons for whom it must be sized. And please clarify how the septic tanks shall be sited at least 20m from the substation if they are inside it.	Control Building – 10 persons Security House – 2 persons The septic tank shall be sited at a location that will not pose environmental hazard and shall be accessible for pumping out of sludge.
84	Cable Trenches	Please confirm that our scope don't include cable trenches outside the substation fence.	Confirmed
85	Overhead Water Tank	Please confirm that the overhead water tank have a 5 cu. m capacity. And give us the size of the borehole next to it.	The water tank shall be 5 cubic metres capacity. The borehole shall be per design of the contractor subject to approval of the Engineer.
86	Cooling Requirement	the cooling requirement from client is ONAN, but the rating power is 30/39 MVA, please clarify the cooling is ONAN or ONAN/ONAF. if it is ONAN/ONAF, please confirm the ONAN rating power is 30 MVA, the ONAF is 39MVA.	30MVA is ONAN rating and 39MVA is ONAF rating

87	Cooling Requirement	the cooling requirement from client is ONAN, but the rating power is 20/26 MVA, please clarify the cooling is ONAN or ONAN/ONAF. if it is ONAN/ONAF, please confirm the ONAN rating power is 20 MVA, the ONAF is 26MVA.	20MVA is ONAN rating and 26MVA is ONAF rating
88	Load Loss Requirement	the no load loss requirement in FTVG is 15kW, load loss is 130kW, but the Minimum Peak Efficiency Index in requirement is 99.724%, its difference, which one is priority, please confirm.	Please meet the requirement of the specifications
89		Please confirm if the switchgear insulation is air or GIS	GIS (SF6) for 33kV and AIS for 11kV
90	Protection and Control Relays	Can you confirm please that protection and control relays of the 33kV and 11kV level will be mounted on the LV cubicles above MV switchgears. Can you confirm please also that differential protection as well as control of transformers should be mounted in panels.	Confirmed
91	48 Core fibre optic cables	We understand that 48 Core fibre optic cables shall be provided by others and therefore will not be part of this package. Would you please confirm the same statement for 48-port ODFs?	Confirmed
92	MALLAM BSP substation	Please note that MALLAM BSP substation is not included in the list of locations that are linked together. However, It is drawn in figures PMC-5091019-PSS-KL-T-102 and PMC-5091019-PSS-KL-T-103.	Connection to Mallam BSP is not part of the scope

93	NMS	It is said that “The current NMS (which is subject to change due to DCCN project) is due from MikroTik”. We get that we should connect the new communication infrastructure to the current NMS. Please confirm.	No, connection will be to the new NMS
94	IP Gigabit Router at Korle Bu	It is said that “The IP Gigabit Router at Korle Bu shall be upgraded to provide the correct number of ports required for the connections as indicated in item i) above.”. Would you please indicate the number of ports that are currently free and available at KORLE BU IP Router?	Further details shall be provided to the winning bidder
95	The IP Gigabit Router at Makola Station G	It is said that “The IP Gigabit Router at Makola Station G shall be upgraded to provide the correct number of ports required as indicated in section i) above.” Would you please indicate the number of ports that are currently free and available at MAKOLA IP Router?	Further details shall be provided to the winning bidder
96	HIGH STREET PSS	Although a new IP router is required at HIGH STREET PSS, the specifications do not require the Integration of this new equipment into the existing NMS at MAKOLA. Please confirm.	Further details shall be provided to the winning bidder
97	The IP Gigabit Router at Achimota BSP	It is said “The IP Gigabit Router at Achimota BSP shall be upgraded to provide the correct number of port to connect to item ii) above.” Would you please indicate the number of ports that are currently free and available at ACHIMOTIP Router?	Further details shall be provided to the winning bidder
98	NMS at MAKOLA	Although a new IP router is required at KOKOMLEMLE PSS, the specifications do not require the integration of this new equipment into the existing NMS at MAKOLA. Please confirm.	Further details shall be provided to the winning bidder
99	Telecommunication systems	We understand that no FAT are required for telecommunication systems. Please confirm.	Confirmed. However, type test certificates shall be provided as required.

100	Substation service load calculations	There is a requirement for “Substation service load calculations, including the loads required for Control, Protection and Local SCADA equipment, including telecommunication equipment;” does that mean a load flow calculations study is required for the new substations ? Would you please provide us with more detail?	Calculations are pertinent to CT rating, Battery sizing, cable sizing, AC/DC, earthing and lightning protection etc of the substation
101	Insulation Co-ordination Studies	There is a requirement for “Insulation Co-ordination Studies for the full development;” Does that mean a coordination study should be done only for the new substations (KORLE GONNO, KOTOBABI, KANDA, and UGTH)? Please specify the scope of study.	For those substations in the contract.
102	Protection Co-ordination Studies	There is a requirement for “Protection Co-ordination Studies for the full substation and all remote ends;” Does that mean a coordination study should be done only for the new substations (KORLE GONNO, KOTOBABI, KANDA, UGTH) OR for the new substations as well as the first corresponding opposite substations (GIMPA, SHIASHIE, BURMA CAMP, SWITCH BACK ROAD, ACHIMOTA, KORLE BU, HIGH STREET, KOKOMLEMLE)? Please specify the scope of study.	As specified “Protection Co-ordination Studies for the full substation and all remote ends;”
103	Secondary Rating	We understand that the secondary rating of current transformers is 5A. Could we suggest 1A also? 1A results in less power consumption than 5A.	Only 5A shall be accepted
104	Voltage Regulator	Is a voltage regulator that will remotely command the tap changer required?	Required as per clause 6.2.3.11 and to be mounted on the tap changer panel

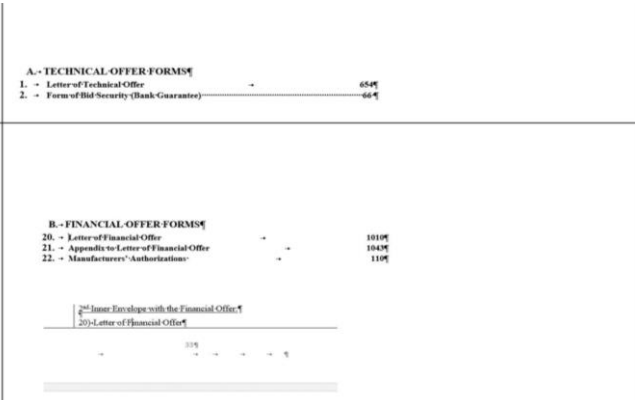
105	Primary Substation Meter	The IFB states “The Primary Substation Meter shall be connected to SCADA and SAS through fibre optic and shall be connected to centralized Meter Management System (MMS) of ECG (which is under construction through different contract package) at the Primary MMS site at the ECG Project Office and the MMS Recovery Station at Legon through GPRS\GSM Modem.” Would you please specify the MMS manufacturer at the ECG Project Office as well as at the Recovery Station at Legon?	Please meet the requirements as per specification
106	AMR Data Management System	It is said that “AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center”. Would you please specify the manufacturer of AMR Data Management system?	Please meet the requirements as per specification
107	Low Voltage Cubicles	There is a requirement for “Local control from the mosaic/control panel”. Does that refer to the switches and buttons mounted on the low voltage cubicles above medium voltage switchgear? Please confirm.	Confirmed
108	Supervisory Control from ECG Control Room	The IFB requests “Supervisory Control from ECG Control Room at Accra 161/33/11kV Substation (to be provided in future).” Does that mean a remote HMI should be installed in ECG future substation? Or does it mean the whole SCADA Control Center at ECG?	There is no need to install a remote HMI at this stage. However, the necessary gateways shall be installed in the new substations.
109	New IP Router	The IFB states “Design, Supply, installation, testing and commissioning of all plant, equipment and accessories required to connect, integrate and interface the new IP Router to the existing ECG network”. Does that mean we have to test all plants in addition to the ones that are in our scope? Please specify the scope.	Bidder shall provide for establishment of the required channels to the next ECG connection points.

110	integration of new equipment	Although a new IP router is required at BURMA CAMP PSS, the specifications do not require the integration of this new equipment into the existing NMS at MAKOLA. Please confirm.	It shall be required to be integrated with NMS at Makola
111	NMS at MAKOLA	Although a new IP router is required at SWITCH BACK ROAD PSS, the specifications do not require the integration of this new equipment into the existing NMS at MAKOLA. Please confirm.	It shall be required to be integrated with NMS at Makola
112	GIMPA PSS	Although a new IP router is required at GIMPA PSS, the specifications do not require the integration of this new equipment into the existing NMS at MAKOLA. Please confirm.	It shall be required to be integrated with NMS at Makola
113	IP Gigabit Router	The IFB states "The IP Gigabit Router at SHIASHIE PSS shall be upgraded to provide the correct number of port to connect to item ii) above." Would you please indicate the number of ports that are currently free and available at SHIASHIE IP Router?	Further details shall be provided to the winning bidder
114	GIMPA and LEGON	According to drawings, there is a liaison between GIMPA and LEGON. Would you maintain that liaison in addition to the new one with UTGH substation? Please clarify this point.	All inter connections as per the drawings shall be maintained.
115	SCADA Gateway systems and equipment	The IFB states "SCADA Gateway systems and equipment supplied shall be compatible with existing equipment with Contractors from either ABB, SEL, Siemens or ALSTOM (NOW GE). " Can we suggest other manufacturers?	Please provide as per Employer's requirement.
116	Network Manager System	Please provide details for Network Manager System	Further details shall be provided to the winning bidder

117	Modifications to SCADA Master	Please confirm that local HMI/gateways are to be installed at substations with remote access from the control center, and that no modifications to SCADA master will be required.	Confirmed
118	Collection of historical data	Please confirm that there is no requirement to provide or configure software/hardware enabling the collection of historical data.	Requirement for software/hardware enabling collection/storage of historical data shall be as per specified in clause 6.15.3
119	HMIs and Point Lists	Please provide example HMIs and Point Lists	Command and indication list shall as a minimum comprise of the values as per clause 6.1.3.15
120	Software/hardware details	Please provide software/hardware details for the security alarm control room in Accra. What are the preferred means of transmitting visuals?	Further details shall be provided to the winning bidder
121	Landscaping requirements	What landscaping requirements will be necessary? Is there something typical for the Accra area?	Landscaping shall make good all impacts (disturbances) introduced by the contractors.
122	Training requirements	<p>"Regarding the training requirements outlined in the scope document, will the trainings overlap in employees and or timeline?</p> <ul style="list-style-type: none"> • For example, will the employees who attend the transformer/switchgear trainings attend the operator training or other training modules? If so, what total time frame will the training cover? • Additionally, how many of these trainings will the contractor be expected to run simultaneously (so we can know how many instructors will need to be provided as many can teach multiple subjects)?" 	Please note the assignment of trainees is as per the employer's requirement and specification.

123	Certified training	<p>"For the certified training for cable splicing and termination, is the course to be for at least 10 engineers for 2 weeks on "All" following topics, or "Each" (as stated) of the following topics.</p> <p>All topics appear to be much too simple to warrant two full weeks of instruction, and one 2 week period makes more sense for all of the topics combined."</p>	Provide training as in the specification under the Employer's Requirement
124	Unique Staff	<p>"Are unique staff (4 ECG staff and 2 Employer/Engineer Staff) required at each of the following tests for each station? For example, will the 6 staff that go for Kotobabi also be able to witness the FAT for the Korle-Gonno at the same time?</p> <ul style="list-style-type: none"> • Power Transformers • 33 kV Metal Enclosed Switchgear • 11 kV Metal Enclosed Switchgear • Auxiliary Transformers • Neutral Grounding Resistors • Substation Automation System" 	It shall as per substation wise as specified in section 4.4.9.
125	Electronic submission	Will electronic submission of monthly reports be acceptable?	Electronic and hard Copy shall be required.
126	Estimate Foundation Loadings	Are we expected to estimate foundation loadings on not to exceed drawings from the preliminary outline drawings we will get from manufacturers? Are the civil works drawings expected to be released for construction at the 60-day stage?	<p>The bidders are to decide whether they will not exceed the drawings they will get from manufacturers. Detailed foundation designs shall be subject to review and approval of the Engineer.</p> <p>Release of "For Construction Drawings for Civil Works" shall be subject to the schedule to be submitted by the bidder.</p>
127	Daily allowance	The requirements for daily allowance and number of staff required for FAT are not consistent between all sections. On Page 119 and page 100 the requirements differ. Please clarify which is correct.	Daily allowance shall be calculated as detailed on page 100. Disregard the values provided on page 119.

128	Switchgear	What types of alarms are deemed important? What alarms should be included for switchgear?	Command and indication list shall as a minimum comprise of the values as per clause 6.1.3.15
129	ITB 19.1.	The Bid Security is stated as being required not to expire until the 05/10/2019, while the bid award is to be 18/10/2019. Should the Bid Security expire after the award date?	The Bid validity period shall be one hundred and twenty (120) days after the deadline for Bid submission as specified below in reference to ITB Clause 23.1. Accordingly, a Bid with a Bid Security that expires before 5 th October, 2019 [date to be <i>twenty-eight (28) calendar days after the end of the bid validity period</i>] shall be rejected as non-responsive.
130	3.2.1. d.1. Scope of Works	Will an OLTC located on the transformer unit be acceptable? If not, can an example OLTC panel be provided?	Please provide as per section 6.2.3.11
131	4.11. Meetings	Which meetings will be required to be in person, and which can be held over conference call or video calls? Will there be unique meetings required for each substation should the bidder win one or both lots?	As per section 4.11
132	Oil Drainage Pit	If filling oil drainage pit with broken stone, is a liner system permissible in lieu of reinforced concrete?	Not confirmed. Follow Sec. 6.31.4 Foundation design specifications
133	Concrete oil drainage pit	If using reinforced concrete oil drainage pit, can stone fill be removed and pit be left open. Grating can be used to access transformer.	Follow Sec. 6.31.4 Foundation design specifications
134	Section IV	Please confirm that the Bid security must be in the financial offer, although in section V seems to be necessary in the Technical offer. A. TECHNICAL OFFER FORMS 1. Letter of Technical Offer65 2. Form of Bid Security (Bank Guarantee)...66	All Bids must be accompanied by a Bid Security included in the Technical Offer in the form and amount specified in the BDS

135	Section IV	<p>Please confirm that the manufacturer Authorization must be in the Technical offer. There is also a discrepancy between section V which seems to be necessary in the financial offer and Section II. ITB 12.1 which does not include the MAF in the Financial offer</p>  <p>The image shows a table of contents for the offer forms, divided into two sections: A. TECHNICAL-OFFER-FORMS and B. FINANCIAL-OFFER-FORMS. Section A includes a Letter of Technical Offer (65 pages) and a Form of Bid Security (Bank Guarantee) (66 pages). Section B includes a Letter of Financial Offer (101 pages), an Appendix to Letter of Financial Offer (104 pages), and Manufacturers' Authorizations (110 pages). There is also a note about a 2nd Inner Envelope with the Financial Offer (20+ Letter of Financial Offer) and a page count of 105.</p>	Confirmed.
136	Section VI	<p>Please confirm that all taxes, stamp duties VAT and other are exempted. For the contractor and their subcontractor for the project</p>	Confirmed
137	Volume I	<p>In the section 1.3 appears mentioned the Volume I" Standard Bidding Document inculcating Commercial conditions." But this is not included in the documents provided. Could you please send this Volume I?</p>	<p>Volume I comprises the entire Invitation for Bids (IFB): Standard Bidding Document for Procurement of Design-Build PART 1 – BIDDING PROCEDURES Section I Instructions to Bidders (“ITB”) Section II Bid Data Sheet (“BDS”) Section III Qualification and Evaluation Criteria Section IV Technical and Financial Offer Bid Forms PART 2 – EMPLOYER’S REQUIREMENTS Section V Employer’s Requirements Schedule of Prices Employer’s Requirements</p>

			<p>Drawings</p> <p>PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS</p> <p>Section VI General Conditions of Contract (“GCC”)</p> <p>Section VII Particular Conditions of Contract (“PCC”)</p> <p>Section VIII Form of Notice of Intent to Award</p> <p>Section IX Annex to the Particular Conditions of Contract - Contract Forms</p>
138	Telecommunication scope	<p>Please confirm that this telecommunication scope mentioned for Korle Gonne should not be included in the offer, due to this is not part of this contract</p> <p>"A 48 Core fibre optic cable shall be laid along the trenches of the existing UG 33kV feeders from Korle-Bu (B) PSS through Korle-Gonno PSS, High Street PSS (AH) to Makola PSS (G) as indicated below:</p> <ul style="list-style-type: none"> • Korle Bu PSS to Korle-Gonno PSS (3km) • Korle-Gonno PSS to High Street PSS (4.1km) • High Street PSS to Makola PSS (1.7km) <p>The cable shall be terminated on 48-port ODFs at Korle Bu PSS, Korle Gonno PSS, High Street PSS and Makola station G. This shall be provided by others and therefore will not be part of this package."</p>	<p>All the scope requested in Employers requirement is required</p>

139	Telecommunication scope	<p>Please confirm that this telecommunication scope mentioned should be included in the offer, for Korle Gonno substation</p> <p>"• Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at Korle Gonno PSS to provide a complete working installation.</p> <ul style="list-style-type: none"> • The IP Gigabit Router at Korle Bu shall be upgraded to provide the correct number of ports required for the connections as indicated in item i) above. • Connection of the duplicated SAS Gateways to the new IP Router and creating two (2) paths within the IP network to connect the Korle Gonno Gateways to the SCADA Control Centre at Makola Station G. • The Contractor will terminate and integrate them with the network at the Substations." 	All the scope requested in Employers requirement is required
140	Telecommunication scope	<p>Please confirm that this telecommunication scope mentioned for Kotobabi should not be included in the offer because This is not part of this contract</p> <p>"• A 48-core UGFOC and OPGW cable shall be installed along new 33kV feeders from Kokomlemle PSS to Kotobabi PSS and also Kotobabi PSS to Achimota BSP. The Fibre Optic cable shall be terminated at Kokomlemle, Kotobabi and Achimota as indicated in drawing number PMC-5091019-PSS-KB-T-108. This shall be provided by others and therefore will not be part of the package."</p>	All the scope requested in Employers requirement is required

141	IP Gigabit Router	<p>Please confirm that this telecommunication scope mentioned should be included in the offer, for Kotobabi substation</p> <p>"•Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at Kotobabi PSS to provide a complete working installation. This IP Gigabit Router shall be connected to the existing Achimota IP Gigabit Router. The IP Gigabit Router will be powered by the duplicated 48 146Vdc power system.</p> <ul style="list-style-type: none"> • The IP Gigabit Router at Achimota BSP shall be upgraded to provide the correct number of port to connect to item ii) above. • Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at Kokomlele PSS to provide a complete working installation. This IP Gigabit Router shall be connected to the new Kotobabi IP Gigabit Router. The IP Gigabit Router will be powered by the existing 48 Vdc power system. • Connection of the duplicated SAS Gateways to the new IP Router and creating two (2) paths within the IP network to connect the Kotobabi Gateways to the SCADA Control Centre at Makola PSS G. and <p>"• the Contractor shall terminate and integrate them with the network at the Substations."</p>	All the scope requested in Employers requirement is required
142	Telecommunication scope	<p>Please confirm that this telecommunication scope mentioned should not be included in the offer because This is not part of this contract</p> <p>"• 48-core UGFOC cable shall be laid together with the proposed UG 33 kV feeders in the same trench from Kanda PSS to the following locations:</p> <ul style="list-style-type: none"> • Switch-Back Road PSS (K) • Burma Camp PSS (L) • Achimota BSP (H) <p>The UGFOC cable shall be terminated on the 48-port ODFs at Kanda PSS, Switch-Back Road, Burma Camp</p>	All the scope requested in Employers requirement is required

		PSS and Achimota BSP."	
143	Telecommunication scope	<p>Please confirm that this telecommunication scope mentioned should be included in the offer, for Kanda substation</p> <p>"• Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) to provide a complete working installation. This IP router shall be connected to existing Achimota BSP (H). The IP router will be powered by the duplicated 48 Vdc power system.</p> <p>• Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at Burma Camp PSS to provide a complete working installation. This IP router shall be connected to new Kanda PSS. The IP router will be powered by the 48 Vdc power system.</p> <p>• Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at Switch Back Road PSS to provide a complete working installation. This IP router shall be connected to new Kanda PSS. The IP router will be powered by the 48 Vdc power system.</p> <p>• The IP Router at Achimota BSP shall be upgraded to provide the correct number of ports as required above.</p> <p>• Connection of the duplicated SAS Gateways to the new IP Router and creating two (2) paths within the IP network to connect the Kanda Gateways to the SCADA Control Centre at Makola Station G, and</p> <p>"• the Contractor shall terminate and integrate them with the network at the Substations."</p>	All the scope requested in Employers requirement is required

144	Employer's requirement	<p>Please confirm that this telecommunication scope mentioned for UGTH should not be included in the offer because This is nor part of this contract</p> <p>"A 48-core UGFOC cable shall be laid together with the proposed UG 33 kV feeders in the same trench from UGTH PSS to the following locations:</p> <ul style="list-style-type: none"> • GIMPA PSS • Shiashi PSS <p>The UGFOC cable shall be terminated on a 48-port ODFs at UGTH PSS, GIMPA PSS and Shiashi PSS. This work shall be done by others..."</p>	All the scope requested in Employer's requirement is required
145	Telecommunication scope	<p>Please confirm that this telecommunication scope mentioned should be included in the offer, for UGTH substation</p> <p>"• Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at UGTH PSS to provide a complete working installation. This IP router shall be connected to the GIMPA PSS and Shiashi PSS. The IP router will be powered by the duplicated 48 Vdc power system.</p> <ul style="list-style-type: none"> • Provision of a new IP Gigabit Router together with the rack and associated accessories (cables, connectors, etc.) at GIMPA PSS to provide a complete working installation. This IP router shall be connected to new UGTH PSS. The IP router will be powered by the 48 Vdc power system. • The IP router at Shiashi PSS shall be upgraded to provide the correct number to ports as required above. • Connection of the duplicated SAS Gateways to the new IP Router and creating two (2) paths within the IP network to connect the UGTH Gateways to the SCADA Control Centre at Makola Station G. " <p>And "• the Contractor shall terminate and integrate them with the network at the Substations."</p>	All the scope requested in Employers requirement is required

146	Section 3, 2, 6	<p>Please confirmed that the training mention in the Section 3, 2, 6 is only needed one of it for each LOT, Not for each substation.</p> <p>It seems that provided the substation of each Lot are in Accra, It could be feasible to join one training or each topic but for the 2 substations of the LOT</p>	The training shall be provided for each substation separately as per section 3.2.6
147	Section 4.13.2	<p>Please confirm that the Site office described in the section "4.13.2" need to be provided one per Lot. Also please confirm that the site office can be built with containers.</p>	<p>Not confirmed. Each location of substation need to have a Site Office (4 sites).</p> <p>Confirmed. Containerised office shall be allowed.</p>
148	Single busbar	<p>Please confirm that for the 33kV part the bus bar is a single busbar as the SLD of the drawing PMC-5091019-PSS-KA-E- 101 and rest of the substations SLD.</p> <p>Although in section 6.1.3.6 appears mentioned: "For 33kV, the busbars shall be of double copper busbar type, rated continuously as specified. The busbars and connections shall be suitably insulated"</p>	Confirmed Single busbar
149	Short circuit test for a transformer	<p>Please confirm if it is necessary to quote the "Short circuit test for a transformer" for the transformer 33/11kV 20MVA- 30MVA.</p> <p>If finally, the short circuit test quotation is required please confirm that This should be considered for just one transformer per Lot and per type.</p> <p>And also please clarify where in the price schedule we should include the cost of it. "An optional price shall be included in the PRICE SCHEDULES for tests to prove dynamic withstand capability."</p>	<p>Short circuit tests shall not be required provided such tests are already included in Type Tests</p> <p>If no proof is provided, the Employer shall reserve the right to request the test at no additional cost.</p>
150	Connection of Energy Meters to MMS	<p>Connection of Energy Meters to MMS using GPRS</p> <p>Please confirm who the manufacturer of the AMR Meter Management system is. As mentioned in the Technical description page 329</p> <p>"It shall be the responsibility of the Contractor to test</p>	Details shall be provided to the winning bidder

		<p>and commission (integrate) each primary substation meter together with its associated modem to ensure that the meter is working successfully with the AMR MMS."</p> <p>But seems not to be possible to quote the integration of the substations with the AMR system if we don't know the manufacturer of it.</p>	
151	Existing Transmission Station	<p>In the Kotobabi's drawings supplied to the contractor, it is noted an Existing Transmission Station, we understand that we don't have to do anything with. Please confirm this interpretation.</p>	Confirmed
152	Existing sewage system	<p>In case of there is an existing sewage system in the substation it won't be necessary to build a septic tank additionally and we understand that we can connect to the existing sewage system of the substation. Please confirm this interpretation.</p>	Not confirmed. Bidder shall cost for design and construction of a septic tank.
153	PMC-5091019-PSS-KB-C-102 a	<p>Please confirm that the 2 pipes of the drawing PMC-5091019-PSS-KB-C-102 are both water pipes, but not one of water and other sewage system, as mentioned in the Technical specification "20. Existing 25mm dia. water supply line in the property (Kotobabi) as shown in the Topographical Report (Appendix 5) shall be re-routed outside of the property. The proposed rerouting of sewer line is shown in drawing number PMC-5091019-PSS-KG-C-103 for bidding purpose only. "</p>	Confirmed. The 2 pipes in Drawing No. PMC-5091019-PSS-KB-C-102 are both water pipes.
154	PMC-5091019-PSS-KB-C-103	<p>Please identify in the drawing PMC-5091019-PSS-KB-C-103 how the 2 pipe should be enrouted as said the Technical specification "20. Existing 25mm dia. water supply line in the property (Kotobabi) as shown in the Topographical Report (Appendix 5) shall be re-routed outside of the property. The proposed rerouting of sewer line is shown in drawing number PMC-5091019-PSS-KG-C-103 for bidding purpose only. The Contractor shall study, investigate and design the rerouting of sewer line during detailed design stage as per respective utility regulations and as instructed by the Engineer."</p>	The 2 – 25mm dia water pipes shall be rerouted along the outside boundary of the perimeter fence.

155	Description of Works	<p>In the paragraph Description of Works, we can read the following text: "One or two successful boreholes shall be drilled and constructed depending on the yield for each community. Successful Bidder shall be required to execute the works as detailed in this contract."</p> <p>We understand the following:</p> <ol style="list-style-type: none">1. In case of there is an existing water pipeline next to the Substation's scope of works, the Contractor can connect to it.	<p>The understanding was wrong. Bidder shall cost for drilling of borehole to provide water supply for each substation site.</p>
	Interpretations	<ol style="list-style-type: none">2. If there is not an existing water pipeline next to the Substation's scope of works, the Contractor shall carry out a borehole for the Substation. <p>Please confirm this interpretations.</p>	<p>Whether there is an existing water pipeline next to the Substation or not, the bidder shall cost for drilling of borehole.</p>

156

There is a discrepancy between the price schedule item 2,11 "TERMINATION KITS FOR 33kV & 11kV INTERCONNECTING CIRCUIT CABLES and the Single Line diagram Drawings of the substation. See below the summary.

UNIT SSEE Price schedule					
Equipment description	Korle Gonno	Kotobabi	Kanda	UGTH	TOTAL
1x400mmsq, XLPE, 11kV Aluminium Cable complete with all accessories	21	18	21	6	66
1x630mmsq, XLPE, 33kV Aluminium Cable complete with all accessories	24	24	24	24	96
1x240mmsq, XLPE, 11kV Aluminium Cable complete with all accessories				15	

UNIT SSEE kit de 3 connector following SLD					
Equipment description	Korle Gonno	Kotobabi	Kanda	UGTH	TOTAL
1x400mmsq, XLPE, 11kV Aluminium Cable complete with all accessories	12	11	12		35
1x630mmsq, XLPE, 33kV Aluminium Cable complete with all accessories	20	20	16	12	68
1x240mmsq, XLPE, 11kV Aluminium Cable complete with all accessories				12	12

UNIT SSEE Price schedule					
Equipment description	Korle Gonno	Kotobabi	Kanda	UGTH	TOTAL
1x400mmsq, XLPE, 11kV Aluminium Cable complete with all accessories	21	18	21	6	66
1x630mmsq, XLPE, 33kV Aluminium Cable complete with all accessories	24	24	24	24	96
1x240mmsq, XLPE, 11kV Aluminium Cable complete with all accessories				15	

UNIT SSEE kit de 3 connector following SLD					
Equipment description	Korle Gonno	Kotobabi	Kanda	UGTH	TOTAL
1x400mmsq, XLPE, 11kV Aluminium Cable complete with all accessories	12	11	12		35
1x630mmsq, XLPE, 33kV Aluminium Cable complete with all accessories	20	20	16	12	68
1x240mmsq, XLPE, 11kV Aluminium Cable complete with all accessories				12	12

Please confirm that the quantities to take into account are the ones of the SLD. In that case confirm whether the price schedule can be modified or you will send a new one.

Please use price schedule quantities. However, disregard item 2.11.2 on price schedule of UGTH

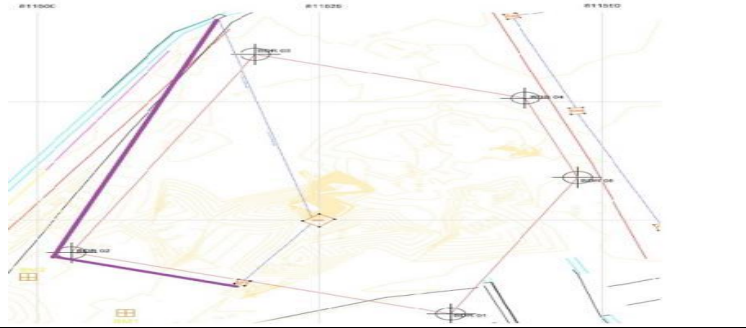
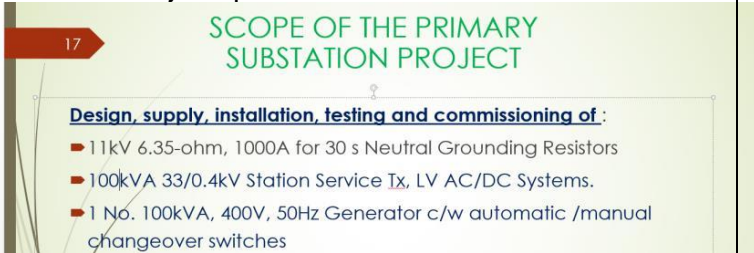
157

Evaluation criteria

Please confirm that in the evaluation criteria the Recommended spare parts are not going to be considered in the evaluation.
 "3.10 Recommended Spare Parts
 The price of recommended spare parts quoted in Price

Confirmed.

		Schedule No. 6 shall not be considered for evaluation. This is because such spare parts would normally be used after long time durations beyond the MCC Compact end date, and could not be financed from the Compact funds. Still the recommended spare parts may be financed directly by the government"	
158	Interpretation	We understand that the Contractor will deliver the land free of liens and any tax. Please confirm this interpretation.	Confirmed
159	Sewerage line	We have noticed that it exists a sewerage line and we have to rerouting it. We have the following questions: 1. Do we have to close a part of this line from MH#1 to MH#2? 2. Do we have to build a new sewerage line from MH#1 to MH#3 and then join MH#4? 3. Do we have to build a new sewerage line from MH#1 to MH#3 and then join MH#4?	Please see Item 20 of Sec. 3.2.4. Also, see Drawing No. PMC-5091019-PSS-KG-E-102 For bidding purposes: 1. Remove pipe from MH1 to MH2. 2. Connect MH1 to MH3. No connection to MH4. 3. Same with Q2.
160	PMC-5091019-PSS-KG-C-102	We have noticed that it exists masonry platform and we have to demolish it. Could we have the dimensions of it?	Approximately 4.0m x 12.0m. Take note of the elevation of the structure with respect to the ground (Drawing No. PMC-5091019-PSS-KG-C-102)
161	Main Drainage	In this paragraph we can read the following: "Storm drainage for buildings, transformer foundations, cable trenches shall be connected to the main drainage of the site. Outflow for main drainage shall be connected to nearest existing storm drainage." We understand that we can connect the drainage line to the nearest exists a storm drain in all of the substation. Please confirm this interpretation.	There are existing main drainage lines near each substation site. The bidder shall connect the internal substation drainage to the nearest main drainage line. The contractor shall validate the capacity of the existing drainage line to absorb the volume from the substation.
162	Sewerage line	We have noticed that it exists a sewerage line that we have to rerouting it. We have the following questions: 1. Do we have to close a part of this line from CH#1 to CH#2? 2. Do we have to build a new sewerage line from CH#1 to the point located outside of the substation, as indicated in the picture below with the purple line ? Otherwise, please specify the rerouting to do.	See SI 159

			
163	MV CELLS.	Please confirm that it's not the scope of the project (for all of substations) to build cables trenches from 33/11 kV input electric lines which they will be connected with the MV CELLS.	As per the detailed scope and BoQ.
164	Cable Trenches	In case of the cable trenches from 33/11 kv input electric lines will be needed, please provide the drawings with the location of it and the detail of them.	As per the detailed scope and BoQ.
165	KDA-ANNEX-1 Drawing	Please, provide KDA-ANNEX-1 drawing in .DWG format to have the elevations related to level curves.	Please see Drawing Number PMC-5091019-PSS-KA-102 which can be downloaded from the Link below . https://drive.google.com/drive/folders/1CIUWvCX_x2OeDuzHKChxv-3pt2vjbfe?usp=sharing .
166	PSS-Project	Please confirm that There is not diesel generator in any substation. Due to There is not in the price schedules and technical specifications. But appears in a part of the "PSS-Project" presentations. 	Confirmed. No diesel generators in this project scope

167	Technical Specifications, 3.2.4 Civil, Structural, Architectural, and Building Services, item 21:	<p>The description of item No. 4.2.1.10a is "Relocate existing HDPE OD 560mm diameter Pipe, including 2Nr. 2.00 x 2.00 x 2.00 -3.5m deep Concrete Chamber. Approximate 110m,"</p> <p>Please confirm that this pipe line is the existing sewer line named in the Technical Specifications, 3.2.4 Civil, Structural, Architectural, and Building Services, item 21: "21. Existing sewer line in the property (Korle Gonno) as shown in the Topographical Report (Appendix 5) shall be re-routed and connected to a sewer line outside of the property including one (1) unit sewer manhole as per regulations and as instructed by the Engineer. The Contractor shall study, investigate and design the rerouting of sewer line during detailed design stage as per respective utility regulations and as instructed by the Engineer. "</p>	<p>Confirmed. Same sewer pipe line.</p> <p>Use two (2) concrete chamber (Price Schedule) instead of one (1) as per SoW.</p>
168	Sub-Clause 1.5	<p>In Particular Conditions, we suggest eliminating any obligation according to the terms of the contract or flow down any terms of the main contract to subcontractor, because the scopes and obligations are different, and the negotiations can be delayed.</p> <p>Moreover, we would like to suggest that Minutes of Negotiation Meetings are included as part of the contract documents just below the Letter of Acceptance and that the Price Schedules are included as the same level as the Letter of Tender.</p>	<p>Minutes of Negotiation Meetings are included as part of the Contract Documents as per the GCC and supplemented by the PCC.</p>
169	Sub-Clause 1.7	<p>We propose including that in case of assignment to an Employer affiliate hereby irrevocably and unconditionally agrees that the Employer is jointly and severally liable for all of the liabilities, obligations, covenants and agreements of the Employer affiliate hereunder and under the Contract, whether now or hereafter existing or due or to become due.</p>	<p>The tenets of Sub-Clause 1.7 of the GCC as supplemented by the PCC must be respected.</p>

170	Sub-Clause 1.12	<p>We propose deleting the following wording: “If any dispute arises as to the necessity of any publication or disclosure of the details of the Contract, the same shall be referred to the Employer whose determination shall be final”.</p> <p>Moreover, we suggest including that the confidentiality obligation will not be enforceable with regard to Information that:</p> <p>a. Is or becomes public knowledge without fault of the Recipient Party.</p> <p>b. Is provided by the Party concerned with the express Exemption from the confidentiality obligation.</p> <p>c. Is known by the recipient Party from a lawful source or lawful procedure that does not entail a confidentiality Obligation.</p> <p>d. Must be disclosed by requirement of law or on demand from a judicial, governmental or administrative authority legally qualified to demand it.</p>	The tenets of Sub-Clause 1.12 of the GCC as supplemented by the PCC must be respected
171	Sub-Clause 3.1(d)	We propose reducing the term of 28 days to 14 days.	The timelines are as per FIDIC Contract as licensed for use by MCC and MCAs.
172	Sub-Clause 4.24	We propose including as items “any munitions or not mapped piping” and adding that if any concealed or latent physical conditions or subsurface conditions appear at the Project Site that (i) materially differ from the conditions indicated in the Contract, (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work, and (iii) could not have been reasonably expected, then, the a variation will be arranged between Parties.	The tenets of Sub-Clause 4.24 of the GCC as supplemented by the PCC must be respected
173	Amendment to the form of contract	We suggest including that if the Employer has not rejected or fails to execute any test, the Contractor shall have the option to forward a written request to the Employer, asking it to sign the results of any test within five (5) Business Days. If the Employer has not rejected or fails to do so, the test shall be deemed to have been approved and the certificate issued on the date of	Rejected. No amendment to the form of contract is required

		actual fulfilment of the conditions	
174	Amendment to the form of contract	<p>We propose adding the following text: The following Conditions Precedent should be met prior to the Commencement of Works:</p> <ul style="list-style-type: none"> • the Contractor must be or have been granted unconditional (but non-exclusive) access to those parts of the Project Site necessary for carrying out the Works; • the Employer must have obtained and paid all the Permits authorizations and Licences related with this Contract needed to start the works. • the Employer must have paid to the Contractor the Advanced Payment. • hand over a letter to the Contractor, signed by the Financial Institutions, in which it is stated that the Employer has signed financing agreements and the related contracts of financing necessary to cover the totality of the funds necessary to ensure timely to the payments stated in the Contract, that the financing agreements are fully in effect and that the financing is fully available and may only be used irrevocably for this purpose. <p>If the Commencement of Works does not take place within 60 days from the execution of the Contract, the Contractor may terminate the Contract and neither party will be liable to the other for any cost, loss, damage or expense arising out of or in connection with the Contract.</p>	Rejected. No amendment to the form of contract is required
175	Sub-Clause 8.1	We propose deleting the wording suggested for preserving the balance of the contract.	Rejected. No amendment to the form of contract is required
176	Sub-Clause 8.3	We propose deleting the wording suggested for preserving the balance of the contract.	Rejected. No amendment to the form of contract is required

177	Sub-Clause 8.7	<p>We would like to include that payment to the Employer of the applicable amounts above shall constitute Employer's sole and exclusive remedy (monetary or otherwise) in the event of any Delays and/or Suspension, the Employer shall not be entitled to any other payment or monetary or other recourse or remedy of whatever kind and nature from the Contractor (including but without limitation in the form of reimbursement of expenses and/or compensation for lost of profits), or to any other remedy available to it under Applicable Law and/or agreement.</p> <p>Notwithstanding of the aforesaid above, if the taking over term is not reached and Liquidated Damages for Delay are applied.</p> <p>Moreover, if the Contractor terminate the Works before the agreed date, a bonus (arranged between parties) will be paid by the Employer to the Contractor.</p>	Rejected. No amendment to the form of contract is required
178	Sub-Clause 8.8	We propose including that the suspension period in no event will exceed 90, consecutive or alternative, days.	Rejected. No amendment to the form of contract is required
179	Sub-Clause 13.7	We propose deleting the wording suggested in the Particular Conditions of Contract for preserving the balance of the contract.	Rejected. No amendment to the form of contract is required
180	Sub-Clause 14.1	We propose deleting the wording suggested in the Particular Conditions of Contract for preserving the balance of the contract.	Rejected. No amendment to the form of contract is required
181	Sub-Clauses 15.2 (g) and (h)	We suggest deleting these points because they are too wide and could lead for an unfair termination	Rejected. No amendment to the form of contract is required
182	Sub-Clause 15.2, second sentence of the second paragraph	We propose deleting the wording suggested for preserving the balance of the contract.	Rejected. No amendment to the form of contract is required

183	Sub-Clause 15.5	We propose including that the Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works itself or to arrange for the Works to be executed by another contractor.	Rejected. No amendment to the form of contract is required
184	Sub-Clause 16.2(d)	We propose deleting the wording suggested in the Particular Conditions of Contract for preserving the balance of the contract.	Rejected. No amendment to the form of contract is required
185	Sub-Clause 17.1	There must be stated that the indemnities must be limited until Taking Over.	No amendment to the form of contract is required at this stage
186	Sub-Clause 17.3	We propose deleting the wording suggested for preserving the balance of the contract.	No amendment to the form of contract is required at this stage
187	Sub-Clause 20.6	We suggest including that in case the arbitration claim exceeds the 20% of the contract price, any party will have the right to suspend the contract.	No amendment to the form of contract is required at this stage
188	Sub-Clause 21	The exemption of taxes shall be applicable also in payments to subcontractors and subcontractors shall be also exempted from paying taxes.	The tenets of Sub-Clause 21 of the GCC as supplemented by the PCC must be respected
189	Sub-Clause 8.7	The maximum amount of Delay Damages shall be 5% of the final Contract Price	No amendment to the form of contract is required at this stage
190	Sub-Clause 14.3 c)	Amount to be retained shall be 5% of Interim Payment Certificates Limit of retention money shall be 5% of the Contract Price	No amendment to the form of contract is required at this stage
191	Sub-Clause 20	Please confirm that the bidder should consider the cost of DAB in the offer (cost of it) as Offer appears in the Appendix to Letter of Financial Offer Please clarify if this DAB might be permanently in during the contract or just in case of Dispute. Moreover please clarify if the DAB might be just during construction or during the construction period and warranty period (defects notification period) of the contract	Confirmed; DAB is deemed permanent

		<p>Appointment of the Dispute Adjudication Board 20.2* Appointment of the DAB to be determined before contract is signed. 20.2* DAB shall comprise Three-(3)-Members. *</p>	
192	Nearest Main road	Please clarify Nearest Main road top level around the substations and the required finishing level for each substation compared with the Road level.	<p>See Drawing No. PMC-5091019-PSS-XX-C-102 for existing site conditions. Where XX is KG, KB, KA, UG.</p> <p>Nearest main road level shall be validated during design stage. The main requirement is that the substation ground level shall be higher than the road level and the Control Building is higher than the substation ground level.</p>
193	Access road	Please clarify if the Access road out of the substations General layout is included to the bidder scope of work or not.	The access road shall be included in the scope of works. Access Road is the road from the gate of the substation to the nearest existing road.
194	General layout	Roads width (3m) in the tender documents (6.31.19) and mentioned (5m) width in general layout for each substation, please clarify.	See SI 78.
195	Structural drawings	Reference Structural drawings.	The project is Design-Build. Bidder is to produce the structural drawings during design stage.
196	Precast concrete planks	Required precast concrete planks for roof slabs. Please clarify as it clearly mentioned in the Arch section as a concrete slab.	<p>The roofing for the control building is metal roofing sheets on steel truss on top of reinforced concrete slab.</p> <p>No precast concrete planks shall be used for roof slabs.</p>
197	Reference drawings	No reference drawings for the car parking, please clarify the construction type and provide reference drawings if possible.	The internal roads in the substation (near main door of control building) shall serve as parking space
198		Basement floor finishing not mentioned clearly in the tender documents, please clarify.	See table of finishes (Floor Finishes) in Sec. 6.31.5.

			Since the basement is classified into "Cable ways and cable distribution rooms" then it shall follow the floor finish as such.
199	Security room floor	Security room floor finishing not mentioned clearly in the tender documents, please clarify.	Non-slip epoxy paint.
200	Drained ditch	Drained ditch will be added to one side of the roads and connected from the ditch end by pipes extended to the nearest storm drainage location, Please confirm.	See SI 161.
201	Fiber optic cables termination	33kv and fiber optic cables termination inside Korle Gonno, Kotobabi, Kanda and UGTH under our scope kindly confirm	The termination shall be provided by Lines Contractor and the space for ODF shall be provided by under this contract
202	Fiber optic cables	33kv and fiber optic cables termination inside existing Substations under our scope kindly confirm	Confirmed
203	SCADA Systems	The existing SCADA Systems modules to be provide	Details shall be provided to the winning bidder
204	SCADA E-TERRACONTROL	Regarding the SCADA E-TERRACONTROL installed in ECG Control Center, we request the following information: <ul style="list-style-type: none"> •The capacity of the installed license (number of digital and analog variables); •Number of digital and analog variables available (reserves); •Need to supply or install additional equipment. 	Details shall be provided to the winning bidder
205	SCADA and SAS	The Primary Substation Meter shall be connected to SCADA and SAS through fibre optic and shall be connected to centralize Meter Management System (MMS) of ECG (which is under construction through different contract package) at the Primary MMS site at the ECG Project Office and the MMS Recovery Station at Legon through GPRS\GSM Modem. Please confirm the make, type and capacity of the centralized Meter Management System (MMS) of ECG (which is under construction through different contract package) at the Primary MMS site at the ECG Project Office.	Details shall be provided to the winning bidder

206	Primary Substation Meter	<p>The Primary Substation Meter shall be connected to SCADA and SAS through fibre optic and shall be connected to centralize Meter Management System (MMS) of ECG (which is under construction through different contract package) at the Primary MMS site at the ECG Project Office and the MMS Recovery Station at Legon through GPRS\GSM Modem.</p> <p>Please confirm the make, type and capacity of the centralized Meter Management System (MMS) of ECG (which is under construction through different contract package) at the MMS Recovery Station at Legon</p>	Details shall be provided to the winning bidder
206	SCADA and SAS	<p>The design, integration, interfacing, testing and commissioning of these primary substation meters into existing SCADA and SAS and MMS shall be responsibility of Contractor and is part of scope of works under this contract package.</p> <p>Please confirm that there is no additional hardware and software required for the Meter Management System (MMS)</p>	Confirmed
207	SCADA and SAS and MMS	<p>The design, integration, interfacing, testing and commissioning of these primary substation meters into existing SCADA and SAS and MMS shall be responsibility of Contractor and is part of scope of works under this contract package.</p> <p>Please confirm that there is no licence upgrade(s) required for the Meter Management System (MMS)</p>	Confirmed

208	Surface Mount Technology	<p>Meter shall be manufactured using SMT (Surface Mount Technology) components and by deploying automatic SMT pick and place machine and reflow solder process. Power supply and voltage divider circuits may be of PTH technology. Further, the Contractor should own or have assured access (through hire, lease or sub-contract) of above facilities.</p> <ul style="list-style-type: none"> •Quality should be ensured at the following stages: -AT PCB manufacturing stage, each board shall be subjected to computerized bare board testing. -At insertion stage all components should undergo computerized testing for conforming to design parameters and orientation. <p>Complete assembled and soldered PCB should undergo functional testing using Automatic Test Equipment's (ATEs).</p> <ul style="list-style-type: none"> •The calibration of meters shall be done at the factory. 	The bidder shall meet this requirement
209	Surface Mount Technology	<p>Meter shall be manufactured using SMT (Surface Mount Technology) components and by deploying automatic SMT pick and place machine and reflow solder process. Power supply and voltage divider circuits may be of PTH technology. Further, the Contractor should own or have assured access (through hire, lease or sub-contract) of above facilities. Please review the requirement that the Contractor should own or have assured access of the specified facilities.</p>	
210	AMR Data Management System\Station	<p>The offered modem shall be an intelligent device connected by means of an optical port / RS-485 port to primary substation meters and meters installed on HV / MV feeders, boundaries and substations to collect the data as given below and send it to AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center.</p> <p>Please confirm the make, type and capacity of the AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center.</p>	Details shall be provided to the winning bidder

211	AMR Data Management System\Station	<p>The offered modem shall be an intelligent device connected by means of an optical port / RS-485 port to primary substation meters and meters installed on HV / MV feeders, boundaries and substations to collect the data as given below and send it to AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center.</p> <p>Please confirm that there is no additional hardware and software required for the AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center.</p>	Confirmed
212	ECG IT Data Center	<p>The offered modem shall be an intelligent device connected by means of an optical port / RS-485 port to primary substation meters and meters installed on HV / MV feeders, boundaries and substations to collect the data as given below and send it to AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center.</p> <p>Please confirm that there is no licence upgrade(s) required for the AMR Data Management System\Station (MMS) of ECG (which is to be implemented under a different contract package) at the ECG IT Data Center.</p>	Confirmed
213	MikroTik Communication Network	<p>Existing MikroTik Communication Network of ECG</p> <p>Please assist us with contact details of MikroTik personnel or partners/ agents who are familiar with the scope of work under this contract.</p>	Bidder shall make efforts to acquire the necessary details required from third parties
213	E-TERRACONTROL Network Management System	<p>Existing E-TERRACONTROL Network Management System (NMS)</p> <p>Please assist us with contact details of Alstom/GE personnel or partners/ agents who are familiar with the scope of work under this contract.</p>	Bidder shall make efforts to acquire the necessary details required from third parties

213	Clarification submission date	Clarification submission date Please assist with an extension to the clarification date, we expect to receive additional technical queries from suppliers for the proposed equipment offered after the 30 th April 2019.	No extension please
214	Land/site acquisition	Land/site acquisition Will the contractor have full access to site upon contract award? Has the proposed substation sites been acquired yet?	Yes, all substation sites are already acquired
215	Local Community	Local Community Will it be the responsibility of the contractor to engage with the local communities regarding the construction of the Substations?	Yes with assistance from the employer in introducing with community leaders
216	Site Location	Site Location Please assist with the coordinates of each site location proposed? It cannot be seen on the drawings mentioned.	UTM Coordinates are given on the Site Survey and Existing Condition Drawings for each substation (.....KG-C-102, KA-C-102, UG-C-102, KB-C-102)
217	Site clearance of Trees & shrubs	Site clearance of Trees & shrubs Is it the contractor's responsibility to remove any trees and shrubs from each site? Please provide a location to dispose of any trees should they need to be.	Contractor shall secure relevant sites for disposal of spoils
218	Training	Training Please indicate the number of representatives and duration required for the training at/for each Substation?	Details of all training is listed in section 3.2.6
219	Factory Acceptance Testing (FAT)	Factory Acceptance Testing (FAT). Please indicate the number of representatives required for the FATs for each type of equipment?	Details are specified in section 4.4.9.
220	Per Diem	Per Diem Please indicate what the Per Diem or daily allowance should be?	Daily allowance shall be calculated as detailed on page 100.

221	Medium Voltage	<p>For the above or other contracts executed during the period stipulated in 3.5.2 above, a minimum experience in the following key activities for each Lot:</p> <p>1. Construction of 5No. Medium Voltage(Minimum primary voltage of 33kV)indoor substations fitted with Metal-Enclosed Switchgears</p> <p>We understand that the experience of indoor /outdoor substation for both 33kV & higher voltage level will be considered</p> <p>Please confirm our understanding</p>	Experience requested under this criteria should be fulfilled.
222	Schedule 2- Supply & Schedule 4.1- installation	<p>As per Price schedule (Schedule 2- Supply & Schedule 4.1- installation) item No.2.11 INTERMINATION KITS FOR 33KV & 11kV INTERCONNECTING CIRCUIT CABLES</p> <p>We understand that the bidder's scope is limited to provision of providing termination kit only for 33kV feeder panel & the cable from feeder panels is not in bidder's scope.</p> <p>Please confirm our understanding</p>	Confirmed
223	Commissioning of office furniture, furnishings and equipment	<p>Sr. No – D20) Design, supply, installation, testing and commissioning of office furniture, furnishings and equipment etc. as per requirements of this volume II and as deemed necessary and required by the Engineer</p> <p>The furniture and furnishing is not mentioned in the price schedule for substations in the LOT - 1 AND LOT- 2 both.</p> <p>We understand the cost for the above-mentioned item will be in addition to the cost considered in Price Schedule.</p>	The bidder shall cost for fully functional offices for the Engineer and Employer

224	Firefighting system	<p>Sr. No – D8) 8 Design, supply, installation, testing and commissioning of Reinforced concrete fire protection wall for transformers and reinforced concrete bund (for protection against leakages of oil)shall meet the requirements of IEC 61936 ,IEEE 979-2012-Guide for Substation Fire Protection and NFPA 850 as per requirements of this volume II and as deemed necessary and required by the Engineer The NFPA and Fire Fighting System is not mentioned in the Price Schedule We understand the same in the bidder scope. Please clarify.</p>	A firefighting system shall not be required. Only suitable fire extinguishers and fire detection system shall be provided
225	Price schedule quantities	<p>2.11 TERMINATION KITS FOR 33kV & 11kV INTERCONNECTING CABLES In conjunction with Dr.No:PSS-KG-E-101_REV_3 Sr. No. 2.11 The termination Kit for 11kV &33kV quantity mentioned is 21 &24 however the quantity as per SLD for feeders required is 21 & 36 respectively & the termination for spare feeders is not in bidder's scope. Please clarify</p>	Please use price schedule quantities.
226	Price schedule quantities	<p>2.11 TERMINATION KITS FOR 33kV & 11kV INTERCONNECTING CABLES In conjunction with Dr.No:PSS-KB-E-101_REV_3 Sr. No. 2.11 The termination kit for 11kV &33kV quantity mentioned is 18 & 24 however the quantity as per SLD for feeders required is 18 & 36 respectively & the termination for spare feeders is not in bidder's scope. Please clarify</p>	Please use price schedule quantities.
227	Price schedule quantities	<p>2.11 TERMINATION KITS FOR 33kV & 11kV INTERCONNECTING CABLES In conjunction with Dr.No:PSS-KA-E-101_REV_3 Sr. No. 2.11 The termination kit for 11kV &33kV quantity mentioned is 21 & 24 however the quantity as per SLD for feeders required is 21 & 36 respectively & the termination for spare feeders is not in bidders'</p>	Please use price schedule quantities.

		scope. Please clarify	
228	Price schedule quantities	2.11 TERMINATION KITS FOR 33kV & 11kV INTERCONNECTING CABLES In conjunction with Dr.No:PSS-UG-E-101_REV_3 Sr. No. 2.11 The termination kit for 11kV,1x240 sq. mm, 1x400sq mm &33kV 1x630 sq. mm, quantity mentioned is 15,6 & 24 however the quantity as per SLD for feeders required is 21,0 & 12 respectively & the termination for spare feeders is not in bidders scope. Please clarify	Please use price schedule quantities. However, disregard item 2.11.2 on price schedule of UGTH
229	Metal-Enclosed Switchgear	1 TERMINATION KITS FOR 33kV & 11kV INTERCONNECTING CIRCUIT CABLES 6.1.3.4 Metal-Enclosed Switchgear All cable connections shall be arranged to suit cables, which will rise to the switchgear from a cable tray or trench running along the rear of the switchboard. Cable terminations shall be of the plug-in or shrink type, subject to the approval of the Engineer. All control cables shall be separated from the power cables and run in a separate trench. Both the mentioned clauses are contradictory, as the Bid Price Schedule calls for the usage of Plug-in type termination kit but the technical specification provides the bidder with an option between Plug-in type termination or Shrinkable type termination. We understand that the bidder can quote for either Plug-in type termination or Shrinkable type termination. Please confirm our understanding.	Please provide Plugin Type.
230	ITB 5.5 Government-Owned Enterprise	In the aforementioned bidding document, it's stated in the "General part, 5.Eligibility, 5.4 Government-Owned Enterprises (page 15th)" that "GOEs are not eligible to compete for MCC-funded contracts for goods or works. GOEs (a) may not be party to any MCC-funded contract for goods or works procured through an open solicitation process, limited bidding, direct contracting, or sole source selection." Could you please clarify and kindly inform us whether	See SI 19

		CMEC as a Government-Owned Enterprise in China is eligible to compete for the aforementioned project?	
--	--	---	--