



CLARIFICATIONS FOR OMS IMPLEMENTATION

BID REFERENCE: 5050100-01/IFB/CB/05/19

SI	Ref	Question	Answer
1	<p>Section VII – Purchaser’s Requirements, G. Attachments, Attachment 2 –Bid Qualification Scoring</p> <p>PAGES 145, 339 & 343</p>	<p>Performance demonstrating the requirements of Section VI, Attachment 4 and the response to Form ADMS-1 over a webcast or onsite meeting, currently planned for the week of 15 July 2019. This demonstration will be performed using a sample of ECG data that will be provided under a non-disclosure agreement.</p> <p>1. Please, can you provide us the NDA that we need to sign in order to obtain the sample of ECG data for the demonstration?</p>	<p>As discussed in the pre-bid meeting, the NDA and data will be provided to vendors invited to participate in the demonstration and interviews.</p>
2	<p>Section VII – Purchaser’s Requirements, G. Attachments: Attachment 2 –Bid Qualification Scoring</p> <p>PAGES 339 & 343</p>	<p>2. Since ECG only indicates that, the demonstration is planned for the week of 15 July, can you please confirm the specific date of the demonstration??</p>	<p>The exact date of the demonstration and interviews will be determined once bids are received. At present, but depending on the number of Bids received, the time is more likely to be towards the end of August 2019.</p>
3	<p>Section IV – Bidding Forms</p> <p>PAGE 338</p>	<p>Could you please precise the project scope from database modeling perspective for all four phases? Reference to section VII - table AST-1 which "operating regions" should be</p>	<p>Only Phase 1 works are required to be implemented under this Contract.</p>

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		modeled at each project phase?	Phases 2, 3 and 4 are future works and Bidders are only to provide budgetary prices for those works as specified within Section IV, Form ADMS-1, Item # 55.
4	Section VII - Purchaser's Requirements, paragraph 1.7	<p>Could you please provide a GIS database extraction containing: all electrical network objects and background maps?</p> <p>The GIS extraction is needed for our experts to audit the GIS database and calculate the effort needed for database clean-up and its extraction into ADMS system during the project implementation.</p>	Refer to Answer to Question 1 above.
5	Section VII - Purchaser's Requirements, paragraph 1.7	Please precise the current quality of the GIS entered data? the frequency of the GIS update and maintenance? the number of people and the profile using GIS today? Support of the schematic displays.	<p>PDS is in the midst of a data migration and field campaign to validate the data. The Utility GIS is to be deployed in Q1 2020. As such, it is anticipated that GIS data will be complete and of high quality.</p> <p>Schematic displays are currently maintained in the SCADA.</p>
6	Section VII- Purchaser's Requirements	Please clarify where the ADMS control center will be located? In the same control center where the current SCADA system is located or in a different building far from the existing one?	It is currently undecided where the OMS control centre will be located and it may not be co-located with the SCADA control centre.
7	Section VII - Purchaser's Requirements, paragraph 0.32 Pages 307-308 &	Could you please clarify how the operating regions will be controlled at the end of phase 4: 1 National ADMS control center containing the whole network model connected to different SCADA system in different regions? Or 4 regional ADMS control centers each one containing only the network under their area of responsibility and connected to its own	Only Phase 1 works are required to be implemented under this Contract hence such Phase 4 considerations can only be addressed at a later (future) date.

SI	Ref	Question	Answer
	Section IV- Bidding Forms 4.12 Form ADMS-1 – Product Suitability Pages 145-146	SCADA system?	
8	Section VII - Purchaser's Requirements, paragraph 1.7	Could you please clarify the type of the AMI and the available interfaces for interconnection with a 3rd party application?	PDS is currently exploring AMI options, and is implementing a MDMS. While the MDMS may be in place to be integrated with the Phase 1 scope of this project, Section VII, 2.6 clearly indicates that the Respondent is required to supply CIM compliant messages. With this definition, the 3 rd party application is not relevant.
9	Section VII - Purchaser's Requirements, paragraph 0.3.2 Pages 307-308.	Please clarify the scope of the functions provided by Lucy electric today and how it should be integrated into the future ADMS?	The current requirement is to integrate with the eTerra SCADA through an ICCP gateway.
10	Section VII - Purchaser's Requirements, Requirement # 115	Please clarify the upper level of the ADMS model? Primary substation, Sub-transmission substation or transmission network? Please provide some examples / network diagrams.	The ADMS should include connection to the Bulk Supply Point and model down to the level of the customer. Examples/network diagrams will be provided to selected vendors under non-disclosure. Please see Answer to Question 1 above.
11	Section VII - Purchaser's Requirements, paragraph 1.7	Please clarify the type of the ESB and the available interfaces.	Refer to Section VII 2.6 of the IFB.

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12	Section VII - Purchaser's Requirements, Requirement # 10	Please clarify the type of the 3rd party street and satellite database.	<p>There is a future plan to use OpenStreetMap. The selected vendor should be able to display background files that are in the following source formats through an import:</p> <p>.SHP, .DBF, .SHX .GEOJSON .JSON .GML .KML .KMZ .MAP .OSM</p>
13	<p>Section II – Bid Data Sheet (“BDS”) ITB 28.5</p> <p>Pages 57 & 340</p>	<p>Could you please confirm that the software demonstration is moved to a further date after the tender due date?</p> <p>Could you please also send the NDA needed to receive the network data needed to prepare the demo?</p>	Refer to Answer to Question 1 above.
14	<p>Section II – Bid Data Sheet (“BDS”) ITB 6.1 (a)</p> <p>Page 51</p>	<p>The Bidder should demonstrate successful experience in Delivery of a ADMS / OMS to a utility of similar size, growth rate, complexity, and stature of ECG/PDS (<i>i.e. 3,000,000 customers at 10% growth rate per annum.</i>). Bidders are required to provide two (2) references. We need clarity on if this is “ADMS or OMS” or “ADMS and OMS”</p>	<p>The references should be the ADMS platform as proposed, with only OMS functionality enabled.</p> <p>An OMS only option is not compliant.</p>

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15	<p>Section III – Bid Review, Evaluation Criteria & Bidder Qualification Requirements</p> <p>Sub-Factor 4.4.4</p> <p>Page 72</p>	<p>At least one (1) contract experience managing environmental and social impacts in similar projects in the last five (5) years prior to the Bid submission deadline. – This is related to field projects and should not be applicable to SCADA Vendors. Please clarify</p>	<p>In this IFB, in accordance with Form TECH-6 on page 132, Field work means work carried out at a place other than the Consultant's home office. This assignment may entail working outside the home office of the Bidder and as result is classed as field work.</p> <p>This experience requirement relates to how the Bidder has embraced social and other sustainability policies e.g. .HIV/AIDs, STDs, TIP, gender issues, forced labour etc., whilst implementing OMS projects elsewhere in the past. The forms are asking for information on just one example each of E&S and H&S of such past OMS projects, indicating what was done with respect to E&S and H&S.</p> <p>The Purchaser wants to be convinced that the Bidder is socially responsible and Health & Safety conscious in their past OMS projects as required by MCC.</p>
16	<p>Section III – Bid Review, Evaluation Criteria & Bidder Qualification Requirements</p> <p>Factor 4.4.5</p> <p>Page 72</p>	<p>At least one (1) contract experience managing health and safety impacts in similar projects in the last five (5) years prior to the Bid submission deadline. OSI : This is related to field projects and should not be applicable to SCADA Vendors</p>	<p>See Answer to Question 15 immediately above.</p>
17	<p>Section IV- Bidding Forms</p> <p>4.12 Form ADMS–1 – Product Suitability</p>	<p>MiDA and ECG/PDS are embarking on a multi-year, multi-phase journey to implement an Advanced Distribution Management System. Initially, ECG will implement a platform with typical functionality to perform outage management, as well as, provide integration with SCADA and call centre</p>	<p>The requirements are very explicit and have been agreed between MiDA, PDS, and MCC.</p> <p>Please respond to the IFB requirements. All</p>

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	Page 146	<p>applications, and provision trouble trucks. The plan is to deliver the solution in four phases to ECG/PDS:</p> <p><i>Phase 1</i> – Funded through the MiDA compact, ADMS with OMS functionality enabled. In this scenario, ECG/PDS would retain its existing SCADA platform (GE Alstom and Lucy), and ADMS functionality through integration. The existing SCADA platform is capable of integration with an OMS, however as ECG/PDS increases its level of automation, the benefits of ADMS will be greater;</p> <p><i>Phase 2</i> – Deployment of the Phase 1 solution to Tema. This may be funded at a later date;</p> <p><i>Phase 3</i> – Deployment of the Phase 1 solution to the remainder of ECG/PDS. This may be funded at a later date; and</p> <p><i>Phase 4</i> - Funded by ECG/PDS to extend the OMS functionality to the remainder of ECG's/PDS's service territory and to implement advanced applications. During this phase ECG/PDS may elect to replace its legacy SCADA with the ADMS SCADA functionality.</p> <p>Comment: This is a potential red flag as the entire approach is a potential big risk and needs to be looked at. We suggest PDS to go for a complete SCADA ADMS with OMS in Phase I.</p>	non-compliant bids will be rejected.
18	Section VII - Purchaser's Requirements <i>Technical queries:</i>	What are the sub-transmission voltage levels that utility currently has in their GIS system?	Voltage levels are provided in Section VII, G. Attachments: Attachment 1.
19	Section VII - Purchaser's Requirements <i>Technical queries:</i>	Which GIS software has been implemented/or going to consider for Distribution network modelling, also please provide GIS version details?	PDS are currently implementing the Utility GIS Supplier G-Technology.
20	Section VII - Purchaser's	Please provide the file format/data exchange format for the	Per the requirements of Section VII, 2.6 this

SI	Ref	Question	Answer
	Requirements <i>Technical queries:</i>	following: Ø CIS via ESB message bus Ø Work Management System (WMS) via ESB message bus. Ø AMI/MDM via ESB message bus	is to be compliant with the Common Information Model, as defined by IEC.
21	PCC Sub-Clause GCC 1.1 Page 239	The funding runs out on September 6, 2021. We need to be confident that if the project runs beyond that, that the Customer has the means to pay the outstanding portion when the funding runs out.	The Government of Ghana, in accordance with the terms of the Compact and the Program Implementation Agreement (PIA) will undertake the commitments subscribed to in this contract after the Compact End Date at midnight on 6 th September 2021.
22	Section III – Bid Review, Evaluation Criteria & Bidder Qualification Requirements Sub-Factor 4.3.1 Historical Financial Performance Page 68	Submission of audited financial statements, in accordance with International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS) as promulgated by the International Federation of Accountants (IFAC) or National Accounting Standards based IAS, for the last three (3) years to demonstrate the current soundness of the Bidder’s financial position and its prospective long-term profitability. We do not have audited financial statements in accordance with IFRS. We have audited financial statements in accordance with US GAAP. Kindly clarify that GAAP is acceptable.	Yes, GAAP is acceptable.
23	Section VII - Purchaser’s Requirements, AST-1: Characteristics of ECG’s Regional Assets	The table has in the Primary Assets section a line with 33/11kV substations (units) totalized 101 and this looks like a normal number. However, in the distribution assets section there is a line “33kV/LV & 11kV/LV substations (units) that totals 20816, is it a correct number?	Yes, Bidders to note that LV substations also include distribution transformers.
24	Section VII - Purchaser’s	In the table at the bottom there is a line Secondary SCADA	Phase 1 is only for Accra East and Accra

SI	Ref	Question	Answer
	Requirements, AST-1: Characteristics of ECG's Regional Assets	Switches (units) which totals 379. Can we confirm that this is the total number of downline devices, and how many respectively for Phase 1, Phase 2, Phase 3, and Phase 4 ?	West, as clearly specified within the IFB.
25	Section VII - Purchaser's Requirements, G: Attachments AST-1: Characteristics of ECG's Regional Assets Page 337-338	What is the total number of points for the substations that need to be implemented in OMS system respectively for Phase 1, Phase 2, Phase 3, and Phase 4? There is no points count available. Also, there is no feeders number available respectively for Phase 1, Phase 2, Phase 3, and Phase 4 so that one can assume at least the number of points based on the number of feeders.	At Primary Level, there are 34 substations with approximately 500 points each. At the secondary/distribution level there are two sites with approximately 20 points each. Refer to Section VII, Attachment 1. This provides the number of devices by Region. We have clearly identified Regions by Phase.
26	Section VII - Purchaser's Requirements, G: Attachments AST-1: Characteristics of ECG's Regional Assets Page 337-338	What is the total number of points for the downline devices (switches), respectively for Phase 1, Phase 2, Phase 3, and Phase 4?	See Answer to Question 24 above.
27	Section VII - Purchaser's Requirements, G: Attachments AST-1: Characteristics of ECG's Regional Assets Page 337-338	It is assumed a number of views based on the number of substations and with the use of Control Panels. Apart from the SLD views, communication view and system overview, should I consider additional views and how many?	Bidders are to provide a fully configured OMS residing on an ADMS platform and a complete User Interface shall be provided and configured as per Bidder design
28	Section VII- Purchaser's Requirements, paragraph 1.5 Page 319	How many vehicles are to be tracked on AVL for Phase 1, Phase 2, Phase 3, and Phase 4 respectively?	Only Phase 1 works are required to be implemented under this Contract and the quantities of AVL Users can be determined from Section VII Attachment 3 .

SI	Ref	Question	Answer
29	Section VII- Purchaser's Requirements, paragraph 1.5 Page 319	What type of modems will be need? Telemetry enabled? Are they both for heavy duty and light duty trucks?	The IFB provides a description of the solution requirements. It is expected that Respondents propose a solution based on their experience.
30	Section VII- Purchaser's Requirements, paragraph 1.2 - Business Requirements to Be Met by the Mobile Solution Page 316	MWFM – What type of work orders (tickets) do Fault Gang and District Maintenance crews perform? Are they outage orders?	Refer to Section VII 0.4.2.
31	Section VII- Purchaser's Requirements, paragraph 1.2 Page 316	For non-outage related orders, where are the order created (or order information come from)?	We can expect that they are created in the CSR portal that is provided by the Respondent. Section VII, 1.4 Business Requirements to Be Met by the Customer Service Representative Module.
32	Section VII- Purchaser's Requirements, paragraph 1.2 Page 316	For GIS asset data –Are we expected to integrate directly to Hexagon or will the customer be translating the data to ESRI?	The PDS solution is based on the Utility GIS system from Hexagon. Solutions that include an intermediate Esri layer will be assessed as non-compliant.
33	PCC - Annex to the Particular Conditions - Contract Forms Pages 282-300	Please advise if the forms “Operational Acceptance”, “Change order procedures” etc. have to filled and/or signed by us during bid submission. These are relevant post award, hence we wanted to raise this query.	No. Do not fill or sign these forms for bid submission. These are samples that will become artefacts in the contract.

SI	Ref	Question	Answer
34	Section VII - Purchaser's Requirements, paragraph 2.6 Integration Requirements Page 324	Please advise who shall be responsible for configuration of ICCP gateway at the GE eterra system side. Also, please advise if the gateway is a separate physical server/machine or a software gateway inbuilt.	Bidders to refer to Clause 2.6.6. All required ICCP equipment and software plus configuration related to the OMS itself, testing and putting into service shall be responsibility of OMS Vendor. ICCP configuration necessary on the legacy SCADA will be PDS responsibility.
35	Section VII - Purchaser's Requirements, paragraph 2.6 Integration Requirements Page 324	Also, advise on the GE eterra SCADA ADMS software version number.	Version 3.6.
36	Section IV – Bidding Forms 4.12 Form ADMS–1 – Product Suitability - Future Phase Pricing – Q 55 Page 145	Regarding Q 55, We would like to know the detailed database size, display/screen QTY's etc. of the existing legacy GE SCADA system.	This is not relevant as you will only be integrating with the ICCP gateway to the eTerra SCADA. Refer to Question #34 above.
37	Section IV – Bidding Forms 4.12 Form ADMS–1 – Product Suitability Q 7 Page 142	Q7 – “Identify key performance considerations, influences, inhibitors, etc., and optimization strategy.” Please clarify if this is a performance-oriented question.	If there are situational considerations that will cause performance issues with the system that you're proposing we need to know then, e.g. network bandwidth requirements, etc.
38	Section IV – Bidding Forms 4.12 Form ADMS–1 – Product Suitability Q 1 - System architecture Pages 142	Please clarify if a redundant OMS system is required with a dual system servers, as well as dual Development/Test Servers, dual Call Handler Server and Outage Web Portal etc.	Redundancy is required for operational systems, not for test systems. Refer to Section VII, Clause 0.4.2.
39	Section VII- Purchaser's Requirements, G: Attachments Attachment 4 – ADMS / OMS	Could you please confirm the following proposition of criteria to fill the table of compliance in order to have a fair analysis among the bidders?	Compliant means that the proposed solution meets the requirement in its entirety - Partially compliant means the

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	<p>Detailed requirements Pages 343-368</p>	<ul style="list-style-type: none"> - Compliant - Partially compliant - Alternate - Not compliant 	<p>proposed solution meets most of the requirements identified, clearly state deficiencies.</p> <ul style="list-style-type: none"> - Alternate means that you cannot meet what is requested exactly but have an alternate means of achieving business requirements and have clearly stated what the alternate is in the Bid. - Not compliant means you have not met, nor cannot in any way deliver, the requirements.
40	<p>Section VII - Purchaser's Requirements, paragraph 0.4 & 1.6 Pages 308 & 321</p>	<p>In order to meet the 99,98% availability, we strongly recommend to have redundancy for the servers in real time production environment. Could you please confirm?</p>	<p>Bidders are to refer to Section VII, Clause 0.4.2 and submit bids accordingly.</p>
41	<p>Section IV – Bidding Forms – 4.12 ADMS 1 – Product suitability Pages 142-145</p>	<p>You have listed criteria for different aspects of the products in the form. In the form ADMS 1, do you want that we take the listed demands into account while preparing our technical proposal or we generate sole and independent Word document in the exact form of Q&A providing response to each demand?</p>	<p>All items must be taken into account and bidders are to respond to each ADMS-1 item using whatever format they prefer.</p>
42	<p>Section IV- Bidding Forms 4.12 Form ADMS-1 – Product Suitability Pages 142-145 &</p>	<p>As there are four phases of the project, will phase 1 include GIS and CIS import for all regions or just for the 2 regions Accra East and Accra West? Is the import per region or for instance Accra East and Accra West is one import? Are there separate geodatabases for each region, this means 8 separate GIS imports and 8 separate CIS imports for us? Please clarify.</p>	<p>Refer to Answer to Question 3 above.</p>

SI	Ref	Question	Answer
	Section VII - Purchaser's Requirements, paragraph 0.32 Pages 307-308		
43	Section VII - Purchaser's Requirements, paragraph 0.4 Pages 309, 325 & 373	Kindly clarify this as well; (Is the ICCP Gateway for integration already available or it has to be supplied?)	See response to question 34.
44	Section II – Bid Data Sheet (“BDS”) ITB 6.1 (a)	The Bidder should demonstrate experience with a well-established ADMS / OMS customer base. Bidders are required to provide five (5) references” – Is it necessary that the five references are for the product proposed or the relevant industry?	The five (5) reference customers must all have been successfully using a fully commissioned OMS system based upon the product proposed by the Bidder.
45	Section II – Bid Data Sheet (“BDS”) ITB 6.1 (a)	“Bidder’s experience with product: – to have at least five (5) years’ experience with the product proposed and have experience in sub-Saharan Africa or Developing Countries. Bidders are required to provide at least Two (2) references” Is the location criteria for developing countries flexible?	The requirements states, “sub-Saharan Africa or Developing Countries”. The location of a Developing Country isn’t relevant, so long as it is indeed a “Developing Country” as defined by the United Nations.
46	Section IV – Bidding Forms Page 90 - 2.4, 2.5, 2.6	Can you please elaborate the difference between “2.4 Recurrent Cost Summary Table”, “2.5 Supply and Installation Cost Sub-Table” and “2.6 Recurrent Cost Sub-Table”.	“2.4 Recurrent Cost Summary Table” provides for the recurrent cost summary in currency totals. The figures in this table are derived from “2.6 Recurrent Cost Sub-Table”. See ITB Sub-clause 14.7. “2.6 Recurrent Cost Sub-Table” provides for the recurrent cost in details in currencies,

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			<p>item by item and year by year.</p> <p>Refer to Section I – Instructions to Bidders (“ITB”) Clause 14.</p> <p>Please ensure all tables are completed as required.</p>
47	<p>Section VII – Purchaser’s Requirements, G: Attachments</p> <p>Attachment 2 – Bid Qualification Scoring Matrix</p> <p>Page ___</p>	<p>Performance demonstrating the requirements of Section VI, Attachment 4 and the response to Form ADMS-1 over a webcast or onsite meeting, currently planned for the week of 15 July, 2019. This demonstration will be performed using a sample of ECG data that will be provided under a non-disclosure agreement. There seems to conflict of dates as this bid is due on the 2nd of August, please clarify the oral evaluation and the on site meeting which is on the 15th of July.</p>	<p>Refer to Answer to Question 1 above.</p>
48	<p>Section VII – Purchaser’s Requirements</p>	<p>Can you please share the existing application landscape including details of existing ERP?</p>	<p>A new ERP system shall be implemented in parallel with the OMS implementation and the successful OMS Bidder will be required to fully coordinate with the ERP Vendor to achieve a fully functioning system, as specified. Integration shall be performed according to Section VII, 2.6. You are responsible for providing CIM compliant messages.</p>
49	<p>Section VII – Purchaser’s Requirements</p>	<p>What is the requirement on Data Migration? What are the applications with which Data needs to be migrated? What is volume of such data?</p>	<p>All data will be in the Utility GIS. The volumes are identified in the Section VII, Attachment 1.</p>
50	<p>Section VII – Purchaser’s Requirements</p>	<p>What is the requirement on reporting? How many reports and dashboards you want to have? What is your current BI Tool?</p>	<p>PDS does not have a standard BI tool at the present time. Section IV 52, 53, 54 clearly requests that Respondents provide all reports as specified throughout the IFB.</p>

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51	Section VII – Purchaser’s Requirements	Are you open to onsite-offshore delivery model or only onsite based model?	Section IV, Form TECH-4 clearly identifies the onsite requirements. These are mandatory.
52	Section VII – Purchaser’s Requirements	What is the scalability requirement considering % of user growth for the future years (Say next 5 years)	Refer to Section VII Attachment 3. This attachment includes the user numbers for Accra East and Accra West. The remainder of the user counts will be the future growth.
53	Section VII – Purchaser’s Requirements	Do you have any preference for implementation methodology and approach - e.g. agile, waterfall etc.?	The overall approach is described in Section IV Form Tech 4.
54	Section VII – Purchaser’s Requirements	Are there any specific requirement related to Application and Database security? If yes, what are the requirements which the Application and Database should comply to?	Refer to Section VII 2.4.1
55	Section VII – Purchaser’s Requirements	Do you have any preference for any specific outage management product / products?	No.
56	Section VII – Purchaser’s Requirements	Please confirm whether we are able to use our OEM solution provider references	References shall be provided for the prime, as well as subs. For example, if Respondent is an integrator, the expectation is that the ADMS vendor, as well as, the integrator would be required to provide references,
57	Section IV- Bidding Forms 4.12 Form ADMS-1 – Product Suitability Page 145 & Section VII - Purchaser’s Requirements, paragraph 0.32 & 1.0 Pages from 306	ECG/PDS likes to replace their existing SCADA system with D-SCADA part of ADMS suite in phase-4 of the project. Please confirm whether we can offer an ADMS solution which doesn’t include D-SCADA? In case its mandatory to include D-SCADA in our offer, whether ECG/PDS is accepting if the bidder proposes a third-party D-SCADA system?	The IFB requirements are very explicit. Respondents bids will be considered if they meet the requirements of Section VII.

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58	Section IV- Bidding Forms 4.12 Form ADMS-1 – Product Suitability Page 145 & Section VII - Purchaser's Requirements, paragraph 0.4 & 1.1 Pages from 307-308	Our understanding is, ECG/PDS likes bidders to include FLISR as part of phase-1 along with the OMS functionality whereas rest of the DMS functionalities e.g. Volt/Var (VVO), Load Shedding/curtailment, Automated Switch Order Management etc. will be supplied as part of phase-4. Please confirm.	Confirmed. FLISR must be provided as clearly specified within the IFB.
59	Section VII - Purchaser's Requirements, paragraph 0.4 & 1.4 Pages from 306-309	Our understanding is, ECG/PDS will extract the network connectivity data from their current Hexagon GIS system and provide the same to bidder for consumption using CIM complied data format. Whereas the background maps will be provided in standard DXF format. Bidder needs to consume this data for building network connectivity model and background maps in ADMS system. Please confirm.	The Respondent shall be entirely responsible for extracting/configuring all GIS data for use within the OMS to achieve a fully functioning system as specified.
60	Section VII - Purchaser's Requirements	Our understanding is, ECG/PDS is currently maintaining a GIS system with good quality of data (>95% accuracy) and there is no data cleansing effort required from the bidder to consume this data for ADMS. Any data quality improvement activities will be performed by ECG/PDS in case it's found not appropriate to utilize within ADMS system e.g. network loops/parallel, incorrect connections, open jumpers, incorrect phasing etc. Please confirm	OMS Vendor will not be responsible for any GIS "data cleansing" but if certain configuration works are required then OMS Vendor shall identify these and assist PDS to rectify so that the data can be properly used within the OMS.

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61	Section VII - Purchaser's Requirements	Our assumption is, ECG/PDS will be responsible for providing the communication backbone between the MCC/DR based on the recommended bandwidth requirements from bidder. Please confirm.	Confirmed.
62	Section VII - Purchaser's Requirements, paragraph 0.4 & 1.4 Pages 309, 325 & 373	Our assumption is, ECG/PDS will be responsible for configuring the ICCP interface on the SCADA (GE e-terra) side whereas bidder will be configuring the ICCP interface on ADMS side. Please confirm.	Refer to Answer to Question 34 above.
63	Section VII - Purchaser's Requirements	We are assuming the ECG/PDS is amicable with composite delivery model consisting of onshore/offshore mixed delivery both for implementation and support/warranty phase of the project and for the onshore/offshore access using secure VPN connection will be provided by the ECG/PDS. Please confirm.	Refer to Answer to Question 51 above. The IFB stipulates explicitly mandatory onsite time.
64	Section VII - Purchaser's Requirements	Please specify whether ECG/PDS currently have any Oracle enterprise licenses for database? - We will avoid including the same within our proposed BOQ.	Respondent is required to supply any and all software associated with the solution.
65	Section VII - Purchaser's Requirements	Sec 2.4.1 – ECG/PDS likes bidders to comply with NERC CIP for the ADMS solution which typically applies to transmission utilities. Is this compliance mandatory as the offered solution is for distribution utility which doesn't comes under NERC/CIP?	It is understood that PDS is not subject to NERC CIP regulatory requirements. However it is mandated by PDS that the proposed solution provides a level of security equivalent to NERC CIP.

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66	Section VII - Purchaser's Requirements, paragraph 2.6 integration requirement Page 324	For the AMI integration, we will assume that meter Headends will be in a position to accept group messages from the ADMS system. Please specify if there is any limitations on number of devices can be polled/pushed at the same time.	Refer to Answer to Question 8 above. All integration shall be CIM compliant.
67	Section VII - Purchaser's Requirements, paragraph 2.6 integration requirement Page 325	For the SCADA integration, can we propose Multi-Speak instead of ICCP?	Respondent may propose a standards based-integration.
68	Section VII - Purchaser's Requirements, paragraph 1.1, 1.4integration requirement Pages 316, 319, 325	For the CIS integration, we assume that ECG/PDS will be responsible for extracting the customer model from the CIS system based on the supply node/service point reference from the network model. Please confirm.	The customer model will be integrated within the GIS extract from the Utility GIS System. See Answer to Question 59 above.
69	Section VII - Purchaser's Requirements	In the RFP, we haven't got any requirement related to system performance and hence we are assuming that, performance testing is not in scope of work. Please confirm.	Performance requirements will be identified over the course of the initial project workshops. Performance testing will be a component of system acceptance testing: if performance is not met, the system will not be accepted.
70	Section VII - Purchaser's Requirements	For all the IT/OT integrations via the ESB, we are assuming that any developments required at the utilities IT system side e.g. EAM, CIS, IVR etc. for either consuming the data from ADMS or sharing data to ADMS will be performed by ECG/PDS whereas bidder is responsible only building the interface between ADMS and ESB. Please confirm	The only integration required in the scope of Phase 1 is with the Utility GIS (extract of customer and network) and ICCP gateway with SCADA. The remainder of the integration may be performed at a later date by PDS. Vendor is required to supply messages as identified in Section VII 2.6.

SI	Ref	Question	Answer
71	Section VII - Purchaser's Requirements	Our understanding is, any change in the electricity regulation post finalizing the design which has impact on the solution will be managed through change request process. Please confirm.	Confirmed.
72	Section VII - Purchaser's Requirements	Please specify the total number of customers/primary meters connected to your distribution network.	Refer to Section VI Attachment 1.
73	Section VII - Purchaser's Requirements	Please specify the number of IO's from the SCADA system e.g. Digital, analog, set points etc.	At Primary Level, there are 34 substations with approximately 500 points each. At the secondary/distribution level there are two sites with approximately 20 points each.
74	Section IV – Bidding Forms, 4.11 Form of Bid Security (Bank Guarantee) Pages 140	Kindly confirm that we can modify the referenced paragraph of the Form of Bid Security (Bank Guarantee) like it is shown below: <i>“This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification that the successful Bidder has signed the Contract and furnished the required performance security; or (ii) twenty-eight (28) days after the expiration of the Bidder's Bid validity period. (i.e.26th February 2020) after that date, the present guarantee shall become automatically null and void regardless of the whether this letter of guarantee is returned to us or not or (c) when this original document return us before the expiry date above mentioned”</i>	No. Bidders are not permitted to modify these wordings of the Bid Security. The language is not acceptable.

SI	Ref	Question	Answer
75	<p>Section VII – Purchaser’s Requirements; A. Background; Section 0.4 Scope of Phase 1 Solution; Requirement 0.4.2</p> <p>Pages 309</p>	<p>Can you please elaborate on the current SCADA Environments (i.e. Primary Production, Development/ Quality assurance, Backup Production, Disaster Recovery) and the SCADA access points and their user functionalities for each?</p>	<p>This is not relevant. The solution will connect through the ICCP gateway.</p>
76	<p>Section VII – Purchaser’s Requirements;</p> <p>G. Attachments; Attachment 4-ADMS/OMS Detailed Requirements, Requirement</p> <p>Page 444</p>	<p>Can you please give more details about Fault Indicators?</p>	<p>At the present time, PDS does not have fault indicators in place. In the future, PDS may install fault sensors that communicate with an industry standard protocol and the OMS proposed must be capable of interfacing/communicating via such protocols (to be detailed by Bidder).</p>
77	<p>Section VII – Purchaser’s Requirements;</p> <p>G. Attachments; Attachment 3 – ECG End User Counts.</p> <p>Pages 339-340</p>	<ol style="list-style-type: none"> 1) Please confirm that if it is necessary to install AVL boarded equipment in 376 trucks? 2) Do you have your own vehicles workshop facilities available to install AVL boarded equipment or we must use other facilities? 3) If you have your own workshop facilities available to install AVL solutions, are centralized or distributed by geography according truck locations? 4) Besides Accra, Tema, Ashanti and Volta, are the rest of vehicles (200) located very spread geographically? This question try to know how complex could be AVL boarded equipment installation 5) Did you need to have a previous AVL pilot? 6) How long is the maintenance period of equipment do you need? 7) How long is the boarded equipment warranty you require? 8) Do you need some integration with truck boarded sensors? <p>Do you have a minimum (%) supply requirement for sparse</p>	<ol style="list-style-type: none"> 1) Refer to Answer to Question 28 above 2) PDS will work with selected vendor to identify suitable install facilities. 3) PDS will work with selected vendor to identify suitable install facilities. 4) Accra East and West are the only two regions in the current scope. 5) Respondents should have demonstrable experience with successful AVL implementations. 6) Maintenance is required for a period of 104 weeks from Operational Acceptance at Go-Live 7) Warranty period is 52 weeks after Operational Acceptance at Go-Live. 8) Please refer to Section VII.

SI	Ref	Question	Answer
		AVL?	9) This question is unclear.
78	Section VII – Purchaser’s Requirements; B. Business Function and Performance Requirements, paragraph 1.5 Business Requirements To Be Met by the AVL Page 319	It is necessary integrate AVL with any ECG legacy system? If yes, please can you detailed the required integrations?	No.
79	Section VII – Purchaser’s Requirements; G. Attachments; Attachment 4-ADMS/OMS Detailed Requirements, Requirements Pages 316 and 324	<ol style="list-style-type: none"> 1) Can you provide details about the Call Centre and/or PBX that ECG is currently using? 2) Has ECG currently implanted an IVR? If yes, can you provide the following information: <ol style="list-style-type: none"> a. Is ECG using TTS and/or ASR? b. Which IVR is ECG using? 	The solution is for a self-contained solution, including CSR and customer portal. There is no need to integrate with the existing call center, PBX, or IVR.
80	Section I. Instructions To Bidders (“ITB”) Clause 13e Attachment 5 Page 28	“A list of all major items of Goods or Services that the Bidder proposes to purchase or subcontract from others, and the name and nationality of the proposed Subcontractor, including Suppliers, for each of those items;” What is considered a major item? Are off-the-shelf HW providers considered major suppliers? Are commercially available 3rd party SW suppliers considered major suppliers? Is networking equipment considered a major item?	If hardware or software is called out as a line item in the Section IV forms, they are considered as major items.
81	Section II. Bid Data Sheet (“BDS”) Page 50 ITB 6.1. d	“... in the case of a Bidder not doing business within the Purchaser’s country, the Bidder is or will be (if awarded the Contract) represented by an Agent in that country who is equipped and able to carry out the Bidder’s maintenance, technical support, training, and repair obligations prescribed in the General and Particular Conditions of Contract, and/or Purchaser’s Requirements. An Agent, acceptable to the Purchaser, shall be established prior to contract signature.” –	Respondent is primarily required to ensure that there is accessible, and competent in-country support for the product. MiDA has specified the onsite requirements for the delivery phases.

Sl	Ref	Question	Answer
82	Page 52 ITB 6.1. b	<p>Is local support required only during maintenance period?</p> <p><i>“Manufacturer's Authorizations for Information Technologies - except for those technologies which the Bidder itself manufactures - are required for the following types/categories: All / all active (i.e. powered) equipment and all software.”</i> – does this requirement apply to commercial off-the-shelf hardware and software (e.g. servers, workstations, Microsoft, Oracle, etc.)?</p>	All hardware and software resold needs a manufacturers authorization.
83	Page 52 ITB 6.1.c	<p><i>"If the Bidder proposes to use Subcontractors for the provision of certain key services, written agreements by the proposed firms to provide these services in case of contract(s) resulting from this bidding are required for the following types/categories of services..."</i>. Please confirm that Subcontractor Agreements are not required as a part of tender submission. The agreement should be presented in case of contract award.</p>	<p>At this time of Bidding, full Subcontract Agreements may not be required. However, some form of documentation or exchange of letters are required to demonstrate that the Subcontractors have agreed in writing to serve for the Bidder under the Contract(s) should the Bidder be awarded Contract (s).</p> <p>See ITB Clause 6.0 of the IFB.</p>

SI	Ref	Question	Answer	
84	<p>Section III – Bid Review, Evaluation Criteria & Bidder Qualification Requirements</p> <p>Sub-Factors 4.4.4 – 4.4.5</p> <p>Page 73</p>	<p>Form EXP-4 and Form EXP-5: Are these forms applicable to System/SW delivery projects? There is no civil scope, therefore there should not be any environmental or social impact caused by the project. Neither form is included in the Checklist. If Form EXP-4 and Form EXP-5 are required, please elaborate on the requirements and expected content. What type of references are the Bidders expected to provide?</p>	<p>See Answer to Question 15 above.</p>	
85	<p>Section IV. Bidding Forms</p> <p>Clause 2.1</p> <p>Page 89</p>	<p>Could you please provide the Pricing Schedules in Excel format?</p>	<p>Respondents are asked to complete the forms provided.</p>	
86	<p>Section V. General Conditions of Contract (“GCC”)</p>	<p>Clause 13.1</p> <p>Page 172</p>	<p>Performance security: based on the Supplier internal risk instruction, the notification of Contract award is not the basis for issuing Performance Security. Please kindly modify the requirement to : <i>"The Supplier shall, within twenty-eight (28) days of the Contract signing, provide a security for the due performance of the Contract in the amount and currency specified in the PCC."</i></p>	<p>The wording is from the MCC Standard Bidding Document for IT Systems Procurements and cannot be changed.</p> <p>In respect of the process towards Contract Award please refer to ITB 35 to 37 which clarifies the steps taken and when the Performance Guarantee is due.</p>
87		<p>Clause 14.1-6</p> <p>Page 172</p>	<p>Please confirm that the submitted prices should be exempted from all taxes. If not, please list the taxes that should be included in the price.</p>	<p>Bidders are to refer to Section V, GCC, Clause 14.</p>
88		<p>Clause 13.1-3</p>	<p>The issuing bank requests a clearly defined expiry date. Please either update the bank guarantee forms or stipulate where the</p>	<p>Bidders to refer to GCC Clause 13.2.2. The AP Security shall be finalised immediately</p>

SI	Ref	Question	Answer
		Page 171 Bidder should enter the expiry date.	after Contract Award.
89	Section VII – Purchaser’s Requirements	Paragraph 0.3.2 Page 306 Will the implementation of Phase 2, 3 & 4 be an extension of Phase 1 (same site & hardware, just additional Network Model, customers, Dispatchers and Field Crew added) or will it be a new separate location / Control Center?	This is unknown and in any event not relevant for the OMS Contract specified as only Phase 1 is being implemented.
90		Paragraph 0.3.2 Will the OMS implementation in Phase 1 be rolled out as part of the IT Network infrastructure or should the ADMS platform be rolled out as part of the OT Network?	This will be supported primarily by the OT group that currently supports the SCADA.
91		Paragraph 0.3.2 Should we include any Firewalls and Network Switches to isolate the ADMS Platform within phase 1?	Respondent is required to propose any and all components of the solution. Please also refer to GCC Clause 17.7.
92		Paragraph C: 2.0 Page 320 Does ECG/PDS have any corporate agreements with any 3rd party license providers that could be utilized within the Project? - Microsoft - Operating Systems (Server and/or Windows 10) - SQL Database - Office (Excel) - PowerBI - CAL's - Oracle Database (Enterprise Edition) - McAfee Antivirus - VMware	Refer to Answer to Question 64 above.
93		Should OMS be implemented with a separate Active Directory instance or should it integrate with an existing Active Directory environment?	You are responsible for a solution as a whole. As a consequence, please propose something that will be all encompassing.

SI	Ref	Question	Answer
94	Paragraph 9:2 & 9.8 Page 330	Should the ADMS Hardware platform be scaled for the future ADMS or only incorporating the current OMS requirements as specified in Phase 1?	The hardware provided should meet the needs of Phase 1.
95		Based on the Implementation Schedule Table it is requested that the Database Servers are deployed at the "Projects Office" and the workstations at the "Control Center". Can you please confirm that a Data Center (floor space, cooling, electricity supply points, network infrastructure) exist at the Projects Office.	Confirmed.
96		Based on the Implementation Schedule Table it is requested that the Database Servers are deployed at the "Projects Office" and the workstations at the "Control Center". Can you please confirm the Network link bandwidth rate available between the Projects Office and the Control Center.	See Response to Question 95 above.
97		Paragraph 2:6.6 Page 323 "The Supplier shall be responsible for configuration of the ICCP gateway from the GE Alstom e-Terra SCADA to the ADMS/OMS" Could you please confirm the below items related to the above statement? 1) What version of e-Terra SCADA is currently implemented? 2) Is ICCP already enabled and currently in-use in ECG SCADA (e.g. between GridCo and ECG)? 3) Please confirm that the mapping between GIS Hexagon and SCADA will be performed during the GIS implementation.	1) Version 3.6 2) Yes 3) Yes
98	Section VII – Purchaser's Paragraph 1.5	Can the AVL Solution be offered as a Service or should it be a perpetual license with an on-premise installation?	They can be offered as a service, so long as all services fees are paid until the end of the

SI	Ref	Question	Answer
	Requirements Page 317		Compact.
99	Paragraph 2.5 Page 322	Please confirm if all manuals should be printed and hard copies made available? These are thousands of pages. Could the manuals be supplied electronically?	All documentation specified within Section VII, Clause 2.5 is only required in electronic format.
100	Section VII – Purchaser’s Requirements, G: Attachments Attachment 1 Page 341	Should the Bidder submit a Table of Compliance as a part of the proposal? Should the ToC nnbe based on the requirements listed in Attachment 4?	Yes.
101	Attachment 2 Page 337	What should be discussed and presented during the demo scheduled for a week of 15th of July? Please share the NDA and ECG data. Will it be handled prior to the submission or should it be moved to the post-submission evaluation phase?	Refer to Answer to Question 1 above. Also note that the demonstrations are now likely to be towards the end of August 2019 and not in July.
102	Section VII – Purchaser’s Requirements	Does a list of recommended contractors for Automatic Vehicle Location/GPS installation exist within ECG/PDS? Could that list be provided?	PDS does not have any preferred Vendors at this time. The onus is for Respondents to identify an AVL partner with a successful record in Ghana.
103	Section VII – Purchaser’s Requirements	What are the working requirements for configuration in the existing Scada?	All requirements are identified in Section VII. Other than integration through ICCP gateway, Phase 1 does not include any SCADA configuration.