



CLARIFICATIONS FOR THE SUPPLY AND INSTALLATION OF POKUASE BSP SUB-TRANSMISSION INTERCONNECTING CIRCUITS - DESIGN-BUILD

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

SI	Ref	Question	Answer
1	Part Section IV ¹	The Link at Page 114 of the Volume 1 Document is not opening and the Bills of Quantities which we presume to be Appendix 3 is not included.	<p>Kindly check and use this Link below: https://drive.google.com/open?id=1dMQ_hl9iHSqAzzXiEDfbgmHbfFhnMt9u</p> <p>Please note that, the Google Drive Links do not work well with some Internet Explorer Installations subject to security settings on each Computer. Bidders are encouraged to use alternative Browser (Google Chrome) if they fail to download with Internet Explorer and can be achieved by copying the Link into Google Chrome Browser.</p>
2	Part 2 Section V	We cannot get the Technical Requirements and Drawings and other detail information about this Project.	<p>Kindly check and use this Link below: https://drive.google.com/open?id=1dKq_wGBwupptCG3ewFK1iql741OFZRHd</p> <p>Please note that, the Google Drive Links do not work well with some Internet Explorer Installations subject to security settings on each Computer. Bidders are encouraged to use alternative Browser (Google Chrome) if they fail to download with Internet Explorer and can be achieved by copying the Link into Google Chrome Browser.</p>

3	ITB 5.4	<p>The ITB 5.4 states that GOEs cannot compete for this project, however, we would like to know if:</p> <ol style="list-style-type: none"> 1. This applies solely to Ghanaian GOEs or all GOEs worldwide 2. GOEs that are independent financially and operationally may participate? If yes, under what conditions? 	<p>This applies to all GOEs worldwide</p> <p>Bidders should ensure that Government-owned Enterprises Forms are completed and signed irrespective of the status of the Bidder, so that they can be assessed on the merits of the Bidding Documents.</p>
4	Part 3 Section VI	<p>Kindly tell me the way to get the part of SECTION VI. GENERAL CONDITIONS OF CONTRACT? Especially the <u>Copies of these FIDIC Conditions of Contract for Construction can be obtained from the Employer.</u></p>	<p>The General Conditions of Contract can be received from the Employer through the Engineer and the address of the Engineer is as follows:</p> <p>Program Director SMEC International Pty Ltd 13th Floor, Heritage Tower, 6th Avenue Ridge, West Ridge, Accra, Ghana Tel: +233 -203035704 /+233 558241189 E-mail: Munusu.Dizamuhupe@smec.com/Ghana@smec.com</p>
5	Section 3.2.6	<p>Regarding the training requirements outlined in the scope document will the training's 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 	<p>As per section 3.2.6, the Contractor shall submit (2 months prior to start) for the Employer's approval the training objectives, etc. This notice will allow the Employer/Engineer finalise the list of ECG personnel to attend the training. As much as possible, there shall be no overlaps of personnel.</p>

		can teach multiple subjects)?	
6	Section 4.4.9	What pieces of equipment will require an engineer to attend the FAT? Is there an approved bidders list for this equipment? Where will the acceptance testing occur?	<p>As per section 4.4.9, page 73 & 74, The Contractor shall carry out factory acceptance tests for all the plant and equipment to be provided under this contract and shall submit the factory test reports for approval of Engineer. However, the equipment listed below shall require factory acceptance tests to be witnessed by ECG and Employer and Engineer staff:</p> <ul style="list-style-type: none"> - Quadruple Steel Towers - Ground Mounted Transformers - 11kV Ring Main Units - Optical Fibres (OPGW and UGFOC) - 1 x 630mmsq and 1 x 400mmsq Cables - Composite Insulators
7	Section 2.4	Delivery of equipment is noted as within 110 days of the contract award. Some items have a lead time that this is very fast for. Is the 230 days following that expected for these long lead items?	As per section 2.4, this project is linked with the construction of the Pokuase BSP substation (which is under construction under separate bid package) and construction of Kanda primary substation (which shall be constructed under a separate contract package for primary substations), the Contractor will be required to submit his own Project Schedule (at least a level 3 schedule).

8	Clause 4.9.14	The TASC is said to review all documentation submitted by the engineer. What kind of turn around can be expected from the TASC? How many rounds of revision are to be included in the bid?	The timing of submissions and reviews shall be as per clause 4.9.14 of the Scope of Works and Specification (Volume II)
9	Clause 4.4.3	How long will the employer have to hold items in a "Hold Point" before approving or rejecting?	As per Clause 4.4.3 of SoW and Specification Volume II
10	Section 4.9.2	Outline Drawings are to be submitted within 60 calendar days of the contract signing. Please verify this is not approval drawings for the main power equipment that will not be available that quickly.	As per section 4.9.2, The Contractor shall, within sixty (60) calendar days after the date of contract signing, submit outline drawings of the materials and equipment to be furnished under this contract.
11	Section 4.9.13	Where are the drawings to be delivered, and are 6 copies of the electronic or paper drawings required?	As per section 4.4.5 and 4.9.13, a schedule of drawings and all documentation for review shall be submitted to the Engineer. As per section 4.9.14(b), all documents shall be submitted in at least size (6) copies printed with dark lines/letters on a light durable paper.
12	Section 4.11	Will any of these meetings be required to be in person, or will phone or Skype meetings be acceptable?	The Contractor shall be required to be physically present at such meetings, though some of the Contractor's staff could join via conference call.
13	Section 5.13	Is there specific grounding software required, or can the engineer design with their choice of software?	The use of CYMGRD is preferred

14	---	Will a liner type oil containment (oil bund) be allowed with stone in place of concrete containment with stone and painted interior? Would it be acceptable for there to be no stone inside reinforced oil containment and grating for access to transformer?	Not relevant to Pokuase BSP Interconnecting Circuit
15	---	What is the preferred foundations method for poor soils, including liquefaction, at Korle Gonno and Kanda? Shallow foundations with deep foundations supporting? Repairing site soils, possibly at only isolated locations?	Not relevant to Pokuase BSP Interconnecting Circuit
16	Section 5.13	Please verify the calculation reports are being asked for.	These calculation reports relate to the detailed transmission tower design and include the tower loading calculations.
17	---	What is the standard fire suppression? Fire extinguishers and smoke detectors or a gas system?	Not relevant to Pokuase BSP Interconnecting Circuit
18	---	The 33kv switchgear has conflicting bus bar requirements. It states 1 bus and 2 busses in different sections. Can it be up to the equipment manufacturer? Is this important to the design? If so, which requirement is correct?	Not relevant to Pokuase BSP Interconnecting Circuit
19	---	The spec requests draw out relays with clear glass front – this is electromechanically technology. The rest of the spec implies digital relays. Is it acceptable to not have relays with clear covers?	Not relevant to Pokuase BSP Interconnecting Circuit

20	Section 1.0	Is JV partner shall also be from Ghana/Local	Not necessarily be from Ghana or be local partner but local JV could be advantageous.
21	Section 2.0 : 3.1	It is mentioned that quantities mentioned are estimated only. Does this means that whatever quantities required to complete the works as per approvals of the client will be paid	This is a Design-Build Contract and the specifications and price schedule provided are indicative for purpose of pricing and not exhaustive. The Contractor is required to provide a fully operational system, thus if any item is missing from the specifications and/or price schedule, but considered necessary for the construction, the price of all such items shall be deemed to be included in the quoted price.
22	Section 3.0 : 6.12.1	Towers of different types are proposed: “ SS “ Type Suspension type “ AC “ Type Anti Cascading or Tension/Angle type ‘DE “ Type : dead End Type All the above towers are to be designed with quadruple (four) circuits i.e. 12 conductors with conductor size of AAC 400 sq. mm and for 33kV level. Such type of design, 4 circuits, 400 sqmm conductor and 33kV level will be available ready-made. If we design all type of towers, is Type testing and Proto testing is required for all designs, As during type testing, the tower gats damaged and cannot be used. Then where those cost of materials and manufacturing will be covered. If it is included in the tower prices then it remain a hidden point in the bid. It is suggested that separate item of type testing charges (if carried out) shall be included in the bid. Those indicating that price will get that if they carry out type testing. Please clarify	There is no separate item in the Price Schedule for type testing of towers. Bidders should provide for all such type testing in their price as per section 6.12.1.
23	Section 4.0 : 6.14.3	Are the16 Nos of 33kV surge arrestors are to be mounted on the towers where the U/G cables are connected to the conductors? Is this required at every connection point where the U/G cable is taken to tower cross arm and connected to the conductor.	Yes, surge arrestors are required at every connection point where the underground cable climbs up the tower cross arm and connects with the overhead line conductor.

24	Section 5.0 : 6.12.3	The sub soil testing report is given in volume 2. Whether fresh soil testing is required or this report can be used for submitting the designs for approvals	As per section 6.23.3.2, for each tower site, the Contractor shall prepare and submit a soil investigation report, describing the methods used, the selected type of soil according to the results of soil investigation, the range of soils according to Clause 12 Table 12-1, and the foundation selected.
25	Section 6.0 :6.24.16	What type of testing at site is to be done after making the cable joints in the chambers	Testing of cable joints on site shall be required to be done in conformance to the Standards and Codes stipulated in section 6.2.2
26	Section 7.0: 6.12.3	Please explain what is meant by “Welded Boxed body section and body section assembled by Bolts “Does this mean that part of the tower section is welded type. Please clarify	The tower type could be made of welded and bolted parts depending on the Contractor's detailed design.
27	Section 8.0:6.12.9.7	Special Frames for Line trap and coupling capacitor to be provided. Are Line trap and Coupling capacitor proposed for the 33kV level .Please clarify	No, line traps and coupling capacitors are not required for the 33kV interconnecting circuits
28	Section 9.0:6.12.11	Please clarify whether the bottom side leg pieces (going to be in the concrete foundation) Stub shall be galvanized type or MS Type. Please clarify.	All tower members shall be galvanized per specifications.
29	Section 10.0:6.12.09	The templates for holding the foundation leg prises (stubs) is not specified in the documents. Please confirm.	This is part of the tower foundation construction work to be undertaken by the Contractor. This is a Design-Build Contract and the specifications and price schedule provided are indicative for purpose of pricing and not exhaustive. The Contractor is required to provide a fully operational system, thus if any item is missing from the specifications and/or price schedule, but considered necessary for the construction, the price of all such items shall be deemed to be included in the quoted price.

30	Section 11.0: 6.13.1	What insulator : Porcelain or Polymer shall be provided for the lightening arrestors	Polymer
31	Section 12.0: 6.2.1	Looping for future use is not specified for the 33kV, 11kV and other cables is not specified. Please confirm whether it is to be considered. If yes then at which end or near the ST joint it is to be provided.	Indicative Slack is provided on all cables as per section 3.2.3, Table 4. Looping slack shall be provided at both ends of the circuit.
32	Section 13.0-6.15.4.2	Confirm whether the drawing for the inspection manholes for the optical fibres is furnished in the document.	PMC-5091019-BSP-408 - typical drawing for underground fiber optic cable inspection chambers is provided.
33	Section 14.0	Please Provide the GTP of 3C x 95 sq.mm Al XLPE Cable	Bidders to provide TDS for 3Cx95sq.mm Al XLPE cable
34	Section 15.0	Please Provide the GTP of Conductor (400sq.mm and 120sq.mm AAC Conductor).	TDS for 120sq.mm AAC provided. Bidders to provide same for 400sq.mm, Check link below: https://drive.google.com/drive/folders/12tjF5Lj4S3N5CLdOC83mt73MOsZ4CbcZ?usp=sharing
35	Section 6.12.1	Would an alternative design utilizing wood, steel, or composite poles be acceptable in lieu of lattice tower designs provided the poles meet applicable code and design requirements?	As per section 6.12.1. the scope of the contract includes the design, detailing, testing, manufacture, check assembly, packing, shipping and delivery to site for use on quadruple circuit 33 kV overhead lines of galvanized latticed steel bolted towers complete with arms and all specified accessories.

36	Section 6.12	Are we to use the towers as detailed in provided structure drawings or do we need to check loadings?	This bid is a " Design-Build" thus the Contractor is required to prepare the detailed designs for all towers as per section 6.12
37	PMC-5091019-BSP-400dwg	The layout drawings (PMC-5091019-BSP-400dwg) appear to show major road improvements at the intersection of N6 (National Road 6?). If so, do we need to design around these proposed improvements?	The background drawing (for the roads) used is that of the ongoing Pokuase Interchange Project. The interconnecting circuit designs shall be done taking into consideration the proposed road improvements.
38	Clause 2	Who is responsible for right-of-way acquisition?	The Employer shall be responsible for acquisition of the right-of-way
39	PMC-5091019 - BSP-402 & 405	What is the preferred foundations method for poor soils, including liquefaction? Design for shallow foundations with deep foundations supporting? Repairing site soils, possibly at only isolated locations?	The bidder shall design for the applicable soil condition. The chosen method shall conform to applicable Codes and Standards. The method shall be backed up by calculations during design phase of the project. Decision to do engineered fill (repairing site soil method) shall be decided during construction phase and not at this point of bidding process.
40	PMC-5091019 - BSP-402 & 405	Please explain what is meant by "Welded Boxed body section and body section assembled by Bolts". Does this mean that part of the tower section is welded type? Please clarify	The tower type could be made of welded and bolted parts depending on the Contractor's detailed design.
41	PMC-5091019 - BSP-402 & 405	Please Provide the GTP of 11/0.415V, 100kVA Ground Mounted Transformer.	100kVA Ground-Mounted transformer revised to 315kVA Ground-Mounted Transformer in drawing(PMC-5091019 -BSP-402 & 405) and revised Price Schedule, Check link below: https://drive.google.com/drive/folders/12tjF5Lj4S3N5CLdOC83mt73MOsZ4CbcZ?usp=sharing

42	PMC-5091019 - BSP-442	Please provide the drawing for the Cable Truss required to be constructed	Typical drawing for Cable/Pipe Truss Bridge provided in PDF and DWG. (PMC-5091019 -BSP-442), Check link below: https://drive.google.com/drive/folders/12tjF5Lj4S3N5CLdOC83mt73MOsZ4CbcZ?usp=sharing
43	Section 6.23.4.5	There is no provision in the Price Schedule for ground stabilisation for towers to be sited on the road embankment, as mentioned during the site visit.	As per section 6.23.4.5, paragraph 4, the Contractor shall protect the foundation by soil stabilisation where soil conditions are unstable. Bidders shall include this in their price for foundations, Check link below: https://drive.google.com/drive/folders/12tjF5Lj4S3N5CLdOC83mt73MOsZ4CbcZ?usp=sharing
44	Price Schedule 2.4.25A	There is no provision in the Price Schedule for the temporary fibre connection to the ECG Roman Ridge District Office which will be disrupted during the decommissioning of the existing double circuit tower line from Achimota BSP to Airport Substation.	A provisional sum line item included in revised price schedule (2.4.25A) for One-year lease of 2-core Fibre Optic Cable including patch panels and all other accessories to provide a fully functional fibre connection between ECG Project Office and ECG Roman Ridge District Office. This cable will offer a temporary replacement for the existing optical fibre cable between Achimota BSP and Roman Ridge District Office
45	PMC-5091019 - BSP-443 to 448	There is no provision in the Price Schedule for the replacement/reconfiguration of existing LV overhead conductors currently on 11kV wood poles which will be converted to underground circuits.	9m wood poles top arrangement and accompanying 120 AAC included in revised Price schedule for this purpose (2.5.29 to 2.5.29G & 4.5.31A to 4.5.31G). Typical drawings also provided (PMC-5091019 -BSP-443 to 448), Check link below: https://drive.google.com/drive/folders/12tjF5Lj4S3N5CLdOC83mt73MOsZ4CbcZ?usp=sharing