

KGN-HYD - 020-2017.: INTERNATIONAL TENDER FOR REHABILITATION OF EXCITATION, GENERATOR MV SWITCHGEAR, LV SWITCHBOARDS AND PROTECTION SYSTEMS OF GITARU HYDRO POWER STATION -KENYA Clarification 2

Item	CLAUSE NO.	TENDER ARTICLE	Question/additional information sought by tenderers.	Clarification
VOL 1: BIDDING REQUIREMENTS AND PROCEDURES				
105	TDS ref No.5	Invitation to tender is open to all tenderers who are manufacturers or authorized suppliers of the systems tendered for. The tenderers and in case of joint ventures the lead partner MUST however be manufacturers of excitation systems.	As per TDS ref No.5 at page 37 of 167 volume 1 mentioned that “Invitation to tender is open to all tenderers who are manufacturers or authorized suppliers of the systems tendered for.” while TDS ref No. 26 at page 46 of 167 of volume 1 stated that “The bidder or the lead partner of a joint venture MUST be a manufacturer of excitation equipment”. Kindly clarify as we feel that there is a contradiction between the two clauses.	There is no conflict. <i>Read the clause on the left.</i> The bidder or the lead partner in a JV MUST be a manufacturer of excitation systems
106	TDS ref No.5	Invitation to tender is open to all tenderers who are manufacturers or authorized suppliers of the systems tendered for. The tenderers and in case of joint ventures the lead partner MUST however be manufacturers of excitation systems.	will it be acceptable by KenGen if the excitation OEM can participate as JV member instead of JV lead partner?	As per tender requirements. The bidder or the lead partner in a JV MUST be a manufacturer of excitation systems
107	TDS 54-ITT 27.7	Tender shall be considered non-responsive and no further evaluation will be carried if: (a) any of the documents listed in the tender data sheet (clause 27.2) is not submitted (b) Any documents required to be filled e.g. technical schedules, confidential questionnaires, price schedule etc. are partially or not filled, (c) information is missing, or is not provided in accordance with the Instructions to Tenderers. (d) Pages and volumes	1. Would you be so kind to explain in details how point d) must be done, so that Tender is considered responsive and that further evaluation is carried out? E.g. each page must be marked as follows: • Volume 1, page 1/[total number of pages in Volume 1] or • Volume 1, page 1/[total number of pages] ili • page 1/[total number of pages] 2. Do the pagination/serialisation applies also for the technical catalogues and manuals as well?	<ul style="list-style-type: none"> • All volumes must be numbered as per TDS ref no.26 • Documents to be arranged in order given in TDS ref no.26. • Documents in a volume to be separated by numbered header pages • A table of contents to be provided for each volume • All pages in a document e.g.

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		in the tender submission don't have Sequential pagination /serialization		<p>manual, method statement etc. to be numbered.</p> <p>Applicable to all documentation</p>
108	TDS ref. No 19	Tender questionnaire	<p>Please note that in all mentioned articles/point Tender Questionnaire form has been mentioned as the form which was given to the Bidder and must be filled in, while such form is missing from the Tender documents.</p> <p>Please note that this form is not stipulated in the Table of Contents and also not mentioned in Qualification Criteria Schedule.</p> <p>Therefore, provide us with this missing form or correct the tender stipulations accordingly.</p>	Form has been provided see addendum 3
109	C: QUALIFICATION REQUIREMENTS, QUALIFICATION CRITERIA SCHEDULE, point 1.2	Documentation Submission requirement: letter of bid	<p>In this table it is stipulated that this requirement must be complied with providing document "letter of bid"? What is to be understood as a "letter of bid"?</p> <p>Is it enough to provide Mandatory Confidential Business Questionnaire form, in which there is article Part 2 (g) – Conflict of Interest where the Bidder must state that they are not in conflict of interest in relation to this procurement?</p>	Mandatory Confidential Business Questionnaire form see addendum 3
110	MANDATORY CONFIDENTIAL BUSINESS QUESTIONNAIRE	part 2(i) – Experience: Please list here below similar projects accomplished or companies / clients you have supplied with similar items or Materials in the last years as required.	<p>Please note that this information requested in this information Mandatory Confidential Business Questionnaire is redundant since we must provide detailed information in regard our previous and ongoing projects in Form 5A, Form 5B, Form 5C.</p> <p>Therefore, can we just refer in Part 2(i) to the forms given above?</p>	Provide all required information in all the forms provided in the tender

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111	KEY EQUIPMENT PERFORMANCE AND EXPERIENCE DETAIL	KEY EQUIPMENT PERFORMANCE AND EXPERIENCE DETAIL	Can this form be omitted since we must provide the requested data in Forms 5A, 5B and 5C?	This form is to be filled as per tender requirements. NB forms 5A,5B,5C provide details on engineering/contractual services offered by the bidder while for this form the bidder is to detail equipment they have supplied whether they installed themselves or not.
VOL 2: EMPLOYER'S REQUIREMENTS /SPECIFICATIONS				
112	1.13.2.4(d)	One (1) Three Phase Motorised Variable Transformers (Variac) for testing purposes with the following features: (i) Transformer shall be cast resin dry type with a fixed input voltage and variable output voltage (ii) Rated continuous input voltage: 415V AC +5% (iii) Rated continuous current @40°C: 150A AC (iv) Surge current rating:1500A for 1sec (x)	Three Phase Motorised Variable Transformers (Variac) are not available as cast resin transformer. It is available only as Toroidal Transformer Coils on steel core. Please confirm. Requirement for Surge current rating:1500 A is not clear. Please explain what you mean by surge current and is the rating:1500 A necessary. We do not include 1000% rating on transformer. Rated 500% (875A) for 12 seconds is available. Please confirm if lower rating of surge current is acceptable. Otherwise the size of transformer need to be doubled followed by price increase. Output Terminal Block is on transformer stack. Please confirm. Regarding the requirement • Digital Voltmeter for output voltage with selector switch • Ammeter for output current with selector switch System will include continuous readout of Volts and Amps for each phase. Please confirm. Regarding requirement up and down push button for output voltage: The voltage is set by keying in the requested voltage on the controller and	Toroidal Transformer Coils on steel core is acceptable. All other as per tender requirements <u>Surge current/overload rating for clarity</u> 10 x nominal current rating for 1 second 3 x nominal current rating for 60 seconds 2 x nominal current rating for 5 minutes Surge current is the maximum current the transformer can withstand for the given duration without suffering any damage if a

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			voltage will be regulated at the set voltage. Is that enough or you want an additional manual raise lower control. Please confirm. Please provide your planned time sequence and frequency of loading and overloading of transformer for your application.	fault was to occur during its use also referred to as short circuit current withstand
113	1.13.2.4(e)	One (1) 433/3300V Three Phase Voltage Booster Transformers for testing purposes with the following features:	It's not clear what type of testing is the purpose of transformer and what will be the load that transformer will carry during the operation especially regarding surge current. How long, and how many times you are expecting that transformer will be loaded with surge current of 1500 A (i.e. once a day, or every 5 minutes, or every hour). Please clarify.	As per tender requirements See clause 1.13.2.4(e) for transformer rating Meaning of surge current is given above
114	2.4.3(d)	Three (3) voltage transformers each with three secondary cores	At the point 2.4.3 "GSU transformer interface (Bus Riser) cubicle "it is listed that, among other equipment, the cubicle should be equipped with "three (3) voltage transformers each with three secondary cores". However, under the point 6.2.3 "Generator Step Up Transformer Feeder (Bus Riser) Cubicle "it is stated that "six (6) voltage transformers each with two secondary cores" should be installed. Could you please clarify what should be the right solution?	six (6) voltage transformers, two for each phase, each with two secondary cores. See addendum 3
115	2.5.2.1 (c)	Two (2) 100% stator earth fault accessories (injection set, filter and CT.), one of each type	According to our experience two sets of 100% stator earth fault by injection can't work simultaneously. We propose solution with two injection sets, from which one will be in 'reserve mode'? Please confirm	As per tender requirements
116	2.5.2.1 (e)	2(two) Lockout trip relays with 20 SPST contacts each	Can we use lockout relays with 2x10 SPST instead of lockout relays with 20 SPST contacts?	As per tender requirements
117	3.2.9.1	Enclosures for electrical equipment shall offer the following degree of protection at minimum (ref. IEC 60034, IEC 60059, IEC 60529 and IEC 60947) where it's not stated in the particular specifications: (a).....	Under the point 3.2.9 "Degree of Protection", for indoor low voltage switchgear and control cabinets is required protection IP 3x. On the other hand, at the point 8.3.2.1 "Switchboard requirements", it is required protection IP 54. Please clarify what should be IP for AC distribution board.	IP 54. Read clause 3.2.9.1 <i>on the left</i>

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		(f) Low voltage switchgear and control cabinets: (i) Indoor IP 3x		
118	4.4	Station Transformers specifications	Within the specifications of the station transformers (point 4.4 “Station Transformers”) it is written that the secondary voltage is 433V. On the other hand, within the requirements for the AC distribution board (point 8.3.1 “General LV Switchboards Requirements”) it is written that the voltage of AC switch board is 415V. Could you please clarify what the right voltage level is?	<ul style="list-style-type: none"> • No load voltage rating of station transformers at maximum tap is 433V. • Nominal operating output voltage of the station transformer is 415V (note the transformers have an OLTC). • Rated nominal voltage of the switchboards to be supplied is 690V AC
119	7.3.8.1 (b)	Information exchange in the communication scheme (IED’s, servers and communication network) shall be implemented using IEC61850 (GOOSE & MMS) station bus communication protocols. The scheme shall also be configured for IEC61850-9 SAMPLED VALUES process bus peer to peer network protocol, optionally the process bus may be offered as a backup to hardwiring.	It’s not clear if it’s mandatory to offer sampled values process bus, or can be offered as backup to hardwiring (and why must be offered as backup if we have hardwiring?).	Protection IEDs and gateways shall support IEC61850-9 SAMPLED VALUES and shall have all configuration files and features necessary for use of this protocol to obtain current and voltage values via communication (CT & VT data). The function shall however not be used as the primary source of CT/VT data as all CT's & VT's shall be hardwired to the IED's.

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120	7.3.8.4 (e)	(i) OPC Server shall support: • OPC Data Access • OPC UA • OPC Alarms and Events specifications (iii) Shall have full support for OPC UA with latest definitions. Shall link to OPC UA clients	1. Please send us brief description why those features are required. 2. Do you have some preferred solution for such OPC server features?	<ul style="list-style-type: none"> • OPC DA for IEC61850 gateway to employer's SCADA DBS server interface. OPC UA for IEC61850 gateway to PIMS interface and other OPC clients for the new systems provided. • No preferred solution, software system meeting all the requirements is acceptable, modern substation automation systems software and other solutions such as MatrikonOPC will meet IEC61850 gateway requirements in clause 7.3.8.4(e)
121	7.5.2.0	ABB SYNCHROTECT® 5 SYN 5202 synchronising relay or equivalent shall be supplied and installed with the following minimum specifications:.....	Has Synchronizing relay to be exactly ABB SYN 5202?	As per tender requirements

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122	8.3.2.1 (g)	Only one incomer shall be connected to each bus section at a time with the exception of EDG incomer which may be synchronised to an active bus bar as detailed in the protection specifications. An automatic changeover scheme shall be implemented, the scheme shall be hardwired relay logic interlocks on each incomer circuit breaker control circuit. Interlocks shall also be implemented to prevent closing of more than one incomer to the same bus section (except EDG synchronisation)	Under the point 8.3.2.1 it is listed that only one incomer shall be connected to each busbar section at a time with the exception of EDG incomer which may be synchronised to active bus bar. Please confirm that EDG can be connected in parallel with one of the incomers at the same time.	Yes, as per tender requirements see clause 7.3.6.7 (f) &(g)

ACKNOWLEDGEMENT OF CLARIFICATION NO. 2

We, the undersigned hereby certify that the addendum is an integral part of the document and the alterations set out in this clarification have been incorporated in the tender proposal.

Signed.....

Tenderer.....

Date.....