

CLARIFICATION QUESTION & ANSWER SHEET

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Project Title: Replacement of Tutuka Power Station Hydrogen Generating Plant

Enquiry Number: MPTUT10438GX

Response date: 2022/10/07

Clarification no: 02

Clarification:

Number	Description of Request	Response
1	Can you assist with providing information for the abovementioned tender on who the manufacturer or the brand of the Hydrogen Plant on site.	The Electrolyser Corporation LTD
2	<p>Below is more information that we are requesting from Eskom</p> <p>We have gone through the documents and the 2 scopes as detailed below.</p> <p>We need the details of the H2 plant supplier as we need the electrical and C&I Details depending on which system they proposes that we can align our proposal with their supply. We also need a copy of the drawing(</p> <ul style="list-style-type: none">• For the 380V Hydrogen Gen Plant Board Switchgear Schedule, refer to drawing number 0.61/15537). <p>3.4.2 Control and Instrumentation Requirements</p> <p>Scope of Work</p> <p>The assumption is that the C&I (instruments, local indication and field Input/Output controller) would be supplied by the OEM as an integrated component of the Hydrogen production unit.</p> <p>An operator interface is required at the outside plant control room for the H2 plant to display and archive the H2 plant status, alarms, events and to provide operating functions (i.e. acknowledging alarms, starting and shutting down H2 plant systems from the control room).</p> <p>The outside plant Yokogawa C&I upgrade project has installed the hardware for a network interface to the H2. The installation also includes a fibre optic</p>	<p>Drawing number 0.61/15537 attached.</p>

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	<p>communication cable open ended at the H2 plant for future use when the H2 plant is upgraded to a microprocessor based system.</p> <p>The following scope of work is required to complete the Yokogawa interface once the H2 plant is upgraded:</p> <ul style="list-style-type: none">• Installation of fibre optic converting hardware at the H2 plant (fibre optic patch panel and network switch)• Network protocol converter module installation at the H2 plant to provide the communication protocol compatible to the new H2 controller (Profibus, Modbus etc.)• Configuration and commissioning of the interface data on the H2 controller and Yokogawa DCS system.• Configuration and commissioning of a Yokogawa graphical display at the control room <p>Configuration of the Yokogawa ExaQuantum (plant information management system) to archive the H2 plant data.</p> <p>3.4.3 Electrical requirements</p> <p>Electrical System Overview</p> <p>The existing hydrogen generating plant is supplied from the 380V Hydrogen plant and Lighting Distribution Board, which is fed from the 380V Distribution Board 2. The new plant will get its supply from the same 380V Hydrogen Plant and Lighting Distribution board. It is assumed that the isolator capacity will be sufficient to supply the power requirements of the new plant.</p> <p>Electrical Scope of Work</p> <p>The Electrical scope for this project is to provide the bulk power supply as will be required for the new Hydrogen generating plant. The electrical requirements of the new plant will be limited to capacity of supply from the 380V Distribution Board and the cables from the 380 Distribution Board to the 380V Hydrogen Plant and Lighting Distribution board. This project will not include and replacements or removal of equipment upstream of the 380V Hydrogen plant and Lighting Distribution board.</p> <p>The Employers scope of work:</p> <ul style="list-style-type: none">• The employer shall provide the bulk power supply required to power the entire H2 production plant, and all ancillaries which form part of the production process as required to fulfil the requirements in this specification. The upgrade of the	
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	<p>hydrogen plant is limited to the maximum capacity of the existing 380V Hydrogen plant and Lighting Distribution Board.</p> <ul style="list-style-type: none"> • For the 380V Hydrogen Gen Plant Board Switchgear Schedule, refer to drawing number 0.61/15537 • The Employer shall review the designs as issued by the Contractor and upon agreement with all requirements, the Employer shall accept the designs for manufacture. <p>The Contractors scope of work shall include but not limited to:</p> <ul style="list-style-type: none"> • The Detailed design of the electrical portion of the plant, shall size all cables, circuit breakers and other electrical reticulation equipment according to the requirements of the hydrogen generating plant. • Manufacturing, construction, testing and commissioning of the electrical plant for the hydrogen plant. • Adherence and compliance to the Generation Plant Safety Regulations for all Electrical works. 	
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Regards

Requester's Name: Zanele Ramaselele