

TENDER CLARIFICATION

The design, development, manufacture, testing at works and site, development of user documentation, training, supply, delivery, off-loading, installation, commissioning, handover, support and maintenance of the Transmission Power System Control and Monitoring (TPSCM) solution as follows:

1. Part A: TPSCM System Software
2. Part B: Rear Projection and Front Projection systems

Response Number: CL006 Date issued: 26 August 2022	Request For Proposal No. MWP1474TX
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The following clarification is needed in response to queries and questions raised by Tenderers.

Clarification Request in **BLUE** and Clarification Response in **BLACK**

Request Number	Clarification / Discussion
32	<p>Which PQ parameters shall be visible to Grid Operators?</p> <p>Eskom response: The following parameters shall be required:</p> <ul style="list-style-type: none">• Total Harmonic Distortion (THD) alarms• Individual phase voltages and currents• Phase to neutral voltages• GPS time
42	<p>What is meant by "dual Virtual Private Network (VPN) link"? A VPN connection inside a VPN connection?</p> <p>Eskom response: The "dual Virtual Private Network (VPN) link" refers to VPN over VPN where two VPN connections are operational simultaneously.</p> <p>A Secure Sockets Layer (SSL) VPN is first established to the corporate network. An IP Security (IPsec) VPN is then established over this VPN to the OT system. A jump server on a dedicated DMZ on the OT system is then used for access.</p>
53	<p>Would the hardware required for the connection to the three hundred serial communication ports (e.g. Redundant Communication Modules) be included as part of the Hardware Supply Scope [Part C]?</p>

	<p>Eskom response: All hardware required shall be included as part of <i>Part C: Hardware cabling and networking</i>, except hardware that has been explicitly included in <i>Part A: TPSCM System Software</i> scope, such as the GPS; analysers and testers (including splitter boxes) referred to in <i>240-170000482 Overview of Requirements for the Transmission Power System Control and Monitoring</i> and <i>240-170000483 Transmission Power System Control and Monitoring Specification</i>.</p>
<p>59</p>	<p>Would you please provide a list of 3rd Party Software companies that Eskom has national agreements (e.g. Microsoft, Red Hat, McAfee, Oracle)?</p> <p>Would these licenses be included under section item 1.1.1 Software component or 1.1.3 Licensing?</p> <p>Eskom response: The list of national agreements includes Microsoft, RedHat, SuSE, McAfee and Oracle.</p> <p>The tenderer shall price all third-party software, under section 1.1.1 of the activity schedule, and licences, under section 1.1.3 of the activity schedule.</p> <p>The <i>Employer</i> may opt to make use of the national contracts listed above for licenses.</p>
<p>60</p>	<p>We will recommend the training requirement with the details, However, can ESKOM detail on the minimum requirement of training requirement in terms of no of trainees with the days details for the each phase.</p> <p>Eskom response: The <i>Employer</i> has a staff compliment of approximately thirty (30) maintenance and support engineers and hundred and ten (110) operators and controllers. For each of the categories of training, such as data and display engineering (10), data acquisition (5), network applications (5), generation optimisation (5) and WAMS (5) the approximate number of employees are indicated in brackets. The <i>tenderer</i> shall indicate the minimum and maximum number of attendees that can be accommodated, and the training duration required per module. The <i>tenderer</i> shall recommend the number of <i>Employer's</i> staff to be trained in the various disciplines to enable the <i>Employer</i> to participate in the project and maintenance phases.</p>
<p>65</p>	<p>Please can you specify the exact number of physical PMU's that should be connected and communicating with the new WAMS system as part of the project implementation scope?</p> <p>Eskom response: Refer to requirement ix. of section 3.3.6.4.2 <i>Substation class Phasor Data Concentrators</i> in <i>240-170000483 Transmission Power System Control and Monitoring Specification</i>.</p>

67	<p>Would you please provide more detail to clarify this statement?</p> <p>Eskom response: The subsystems refer to functional components such as data acquisition; application servers; web servers; and historian.</p>
68	<p>Would this be 40% of the cost of the entire contract (Project + Maintenance and Support), or only of the Project (Phase 2 to Phase 6)?</p> <p>Eskom response: Forty percentage (40%) of the cost is with reference to the project only and is applicable to Phases 2-4 from the "total project cost" of Phases 2-6. All maintenance and support costs as defined for <i>Post Project Phase- Maintenance</i> is excluded from the "total project cost". Refer to 240-170000483 <i>Transmission Power System Control and Monitoring Specification</i> section 12.1.1 <i>Pricing Schedule (PS)</i>.</p>
69	<p>Please can you specify the number and details regarding the additional rack mounted workstations and monitors required?</p> <p>Eskom response: The <i>Employer</i> requires KVM (Keyboard, Video, Mouse) access to servers in cabinets, minimum one (1) per equipment room at PCC and SCC for the IMM network; and one (1) rack mounted workstation with dedicated KVM per equipment room at PCC and SCC for the operational network.</p>
76	<p>Additional rack mounted maintenance workstations and monitors are required in each of the server rooms. How many workstations are required per server room?</p> <p>Eskom response: As per request 69, the <i>Employer</i> requires KVM (Keyboard, Video, Mouse) access to servers in cabinets, minimum one (1) per equipment room at PCC and SCC for the IMM network; and one (1) rack mounted workstation with dedicated KVM per equipment room at PCC and SCC for the operational network.</p>