

Title: **Tender Technical Evaluation Strategy for Replacement of Oil Filled RMU Switchgear Project**

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## **1. INTRODUCTION**

This document has been developed to set the technical evaluation criteria to be used when evaluating the tender submissions for the replacement of oil filled RMU switchgear project at Hendrina Power Station. The evaluation of tender will be based on tenderers' ability to meet the requirements specified on this document. A weighted score card approach will be used to evaluate the tenders against the Employers requirements.

Hendrina Power Station came into operation by the end of 1976. It is located on the N11 between Middelburg and Hendrina. The facility is situated south-west of Optimum Colliery, which historically supplied most of the coal to the power station.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

The document covers the criteria for the evaluation electrical scope of work and civil scope of work.

The scope of the project is about the replacement of 4 oil-filled outdoor ring main unit (RMU) MV switchgears at Hendrina power station (in Pulenshope).

The scope of work will entail the following (as detailed on the NEC: C3.1- *Employer's Works Information*):

- Decommissioning of the 4 existing Ring Main Units
- Design, manufacturing, testing, and delivering of 5 Ring Main Units
- Design and construction of 4 Ring Main Unit plinths
- Installation and commissioning of 4 Ring Main Units

#### **2.1.1 Purpose**

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for the tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

#### **2.1.2 Applicability**

This document shall apply to Hendrina Power station.

## **2.2 NORMATIVE/INFORMATIVE REFERENCES**

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

### **2.2.1 Normative**

- [1] 240-48929482: Tender Technical Evaluation Procedure, Rev 1
- [2] 32-1033: Eskom Procurement and Supply Chain Management Policy, Rev 5

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[3] 32-1034: Eskom Procurement and Supply Management Procedure, Rev 5

### 2.2.2 Informative

- [4] Annexure A: Technical Schedule A&B
- [5] NEC document: C3.1 *Employer's Works Information*
- [6] D-DT-8060: RMU specification
- [7] 240-56030406- specification for ring main units for systems with nominal voltages from 3.3 kV to 33 kV.
- [8] 240-56030635-general information and requirements for medium-voltage cable systems.
- [9] 240-77904802 – replacement/installation of mini-substation, ring main units and ground mounted transformers.

### 2.3 DEFINITIONS

Definition	Description
Switchgear	A general term covering switching devices and their combination with associated control, measuring, protective and regulating equipment, also assemblies of such devices and equipment with associated interconnections, accessories, enclosures and supporting structures, intended in principle for use in connection with generation, transmission, distribution, and conversion of electric energy

#### 2.3.1 Classification

**Controlled Disclosure:** Controlled Disclosure to external parties (either enforced by law, or discretionary).

### 2.4 ABBREVIATIONS

Abbreviation	Description
kV	Kilovolt
MV	Medium voltage
NEC	New engineering contract
RMU	Ring main unit
TET	Technical evaluation team

### 2.5 ROLES AND RESPONSIBILITIES

N/A as per 240-48929482: Tender Technical Evaluation Procedure

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## 2.6 PROCESS FOR MONITORING

N/A

## 2.7 RELATED/SUPPORTING DOCUMENTS

N/A

## 3. TENDER TECHNICAL EVALUATION STRATEGY

### 3.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) of 70% is required for a tenderer to be considered for next level of evaluation. The evaluation criteria have been broken down into sections and a percentage weighting for each section is allocated. The tenderer must ensure that his/her submissions contain all the relevant data/proof to substantiate the *Employer's* weighted criteria as populated on table 3.

***NB:*** The main *contractor* for this project must be an electrical contractor and the sub-*contractor* must be a civil contractor. The main *contractor* is expected to submit returnable for electrical works as well as the civil works.

### 3.2 TET MEMBERS

Table 1: TET Members

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### 3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

**Table 2: Level 1 Mandatory Technical Evaluation Criteria**

	<b>Mandatory Technical Criteria Description</b>	<b>Yes/No</b>	<b>Reference to Technical Specification / Tender Returnable</b>	<b>Motivation for use of Criteria</b>
1.	Is the tenderer the OEM for the RMU to be supplied or has a trading agreement with the OEM?		Letter of support from OEM or trading agreement between the tenderer and OEM; or a letter in the company letter head confirming that they are the manufacturer of the RMU.	
2.	Does the RMU have a warranty?		Letter of warranty for the RMU supplied.	
3.	Is the company registered as an electrical contractor?		Submit proof registration/certification	Occupational Health and Safety Act 85 of 1993, Electrical Installation Regulations.

**3.4 LEVEL 2 - QUALITATIVE TECHNICAL EVALUATION CRITERIA**

**Table 3: level 2 - Qualitative Technical Evaluation Criteria**

	<b>Qualitative Technical Criteria Description</b>	<b>Reference to Technical Specification / Tender Returnable</b>	<b>Criteria Weighting (%)</b>	<b>Criteria Sub Weighting (%)</b>
<b>1.</b>	<b>Design and manufacturing of RMUs</b>		<b>40%</b>	
	<p><b>1.1. Technical Schedule</b>                      Submit completed technical schedules electronically in provided excel format; all three schedules to be completed namely:</p> <ul style="list-style-type: none"> <li>• Technical schedule A&amp;B.</li> <li>• Deviation schedule, where applicable to complete.</li> <li>• Tools, spares, drawings test reports schedule</li> </ul>	Annexure A - Technical schedules to be completed by supplier and returned with tender returnable- Excel format only.		<b>12</b>
	<p><b>1.2. Type Tests</b>                      Provide a full list, as well as the complete English copies of all type tests required for all RMU offered as required in 240-56030406, SANS 1874, SANS 62271-200, and SANS 62271-202.   <b>Note: List of all type tests is also listed in the tools, spares, drawings test reports schedule T.5a), 5b) and T.5c)</b></p>	Eskom specification and the normative referenced standard requirements of 240-56030406, SANS 1874, SANS 62271-200, and SANS 62271-202.  Submit Type test reports and certificates as listed in tools, spares, drawings test reports schedule - T.5a), T.5b) and T.5c).		<b>6</b>
	<p><b>1.3. Internal arc classification type test reports required for RMUs intended for outdoor application:</b>                      Provide a full list, as well as the complete English copies of all applicable type tests in accordance with the Eskom specification 240-56030406 required IAC-AB for outdoor RMU and enclosure offered.   <b>Note: IAC – AB type test report for both the switching compartment and the cable compartment.</b></p>	Eskom document specification for ring main units for systems with nominal voltages from 3.3kV to 33kV clause 3.22  Eskom specification 240- 56030406 and the normative referenced standard of SANS 1874 and SANS 62271-202.  Submit Type test reports and certificates.		<b>6</b>

	<p><b>1.4.</b> Submit factory routine test reports and test certificate as required in 240-56030406, SANS 1874, SANS 62271-1, SANS 62271-200, and SANSA 62271-202.</p> <p><b>Note: List of all routine tests also listed in the tools, spares, drawings test reports schedule T.6a) and T.6b).</b></p>	<p>Compliance to 240-56030406, SANS 1874, SANS 62271-1, SANS 62271-200, and SANSA 62271-202.</p> <p>Reports and certificates as listed in tools, spares, drawings test reports schedule - T.6a) and T.6b).</p>		<b>6</b>
	<p><b>1.5.</b> Drawings</p>	<p>Submit outline/general assembly drawings for the offered RMU, compliant to the requirements of 240-56030406 clause 3.21b and SANS 1874 clause 8.2b.</p>		<b>6</b>
	<p><b>1.6.</b> Manuals</p>	<p>Submit operating manual(s) for RMUs, installation manual(s) for RMU, maintenance manual(s) for the RMUs and auxiliary circuit wiring diagram(s) as per requirement of SANS 1874 clause 8.3b and clause 8.3d.</p>		<b>4</b>
<b>2.</b>	<b>Installation, cabling and commissioning of RMU switchgears</b>		<b>30%</b>	
	<p><b>2.1 References of past similar work</b></p> <p>The tenderer to submit a list of traceable references which adequately proves that the tenderer has at least completed one contracts successfully of similar scope (Installation of MV cables in the last five (5) years.</p> <p>Submit reference list, order/contract, consisting of the following information:</p> <ul style="list-style-type: none"> <li>• Name of company where project was executed.</li> <li>• Contract period</li> <li>• Description of services provided.</li> <li>• Contract value</li> <li>• Name, designation and contact number of reference person.</li> </ul>	<p>Company Profile</p>		<b>5</b>
	<p><b>2.2 Provide qualifications of key personnel</b></p>	<p><b>SAQA verifiable certified copy of qualification as proof and CVs.</b></p>		<b>10</b>
	<p>2.2.1 Site manager or foreman rigger</p>			<b>2</b>



	1.2.2 Rigger			2
	1.2.3 Skilled electrician/Technician			2
	1.2.4 Artisan			2
	1.2.5 Cable jointer			2
	<p><b>2.3 Methodology: Method statement for the installation, cabling and commissioning of RMU switchgears.</b></p> <p>Technical proposal for the works as described in the scope of works indicating the following aspects as minimum:</p> <ul style="list-style-type: none"> <li>• Scope to be undertaken.</li> <li>• Construction/installation methodology</li> <li>• Proposed investigation/studies (detection of underground services)</li> <li>• Risks and mitigations</li> </ul>	Detailed method statement		5
3.	<p><b>ISO 9001 compliance: Contractor to compile a QCP for the scope of work. The QCP to be compiled in line with the guideline given in the Eskom QM58 procedure.</b></p>			5
	3.1 Submit detailed QCP- demonstrating understanding of the technical scope as well as the interpretation of the QM588 procedure	Detailed QCP		5
4.	Tender returnable for a proposed Civil Subcontractor, refer to table 4 below.		30%	
			<b>TOTAL:</b> 100	

**Table 4: Qualitative Technical Evaluation Criteria for a proposed Civil Sub-Contractor**

Category	Points	Sub Criteria	Score	Source Evidence	Reason for Requirement
EXPERIENCE OF COMPANY	5	<b>This sub criterion covers the experience of the company in civil construction projects</b>		Company Profile	Construction Regulation 5 (h);
		5 years or more	5		
		4 years	4		
		2 years	2		
		1 year and less	0		
COMPLETED SIMILAR PROJECTS	5	<b>This sub criterion covers the number of completed projects that entails concrete construction</b>		List of completed similar work with references/ Completion Certificate	Construction Regulation 5 (h);
		5 or more similar projects successfully completed	5		
		4 similar projects successfully completed	4		
		2 similar projects successfully completed	2		
		0 similar projects successfully completed	0		
EXPERIENCE CONSTRUCTION MANAGER	5	<b>This sub criterion covers the general experience of the proposed Construction Manager (total duration of professional activity as a Construction Manager) in site management of Civil Engineering construction Projects.</b>		CV of the proposed Construction Manager	Construction Regulation 8 (1)
		5 years or more	5		
		4 years	4		
		2 years	2		
		1 year	0		

EXPERIENCE GENERAL FOREMAN	5	<b>This sub criterion covers the experience of the proposed General Foreman (total duration of professional activity as a General Foreman) in projects that entails Concrete construction</b>		<b>CV of the proposed Foreman</b>	Assessment for the experience of the foreman relating the construction of concrete construction.
		5 years or more	5		
		4 years	4		
		1 year	0		
Construction Method Statement	10	<b>This sub criterion covers the contents of construction method statement for concrete construction.</b>		<b>Detailed Method Statement</b>	Assessment of the ability of the contractor to execute the work safely and technically acceptable within the standards
		List of relevant specifications (i.e., SANS)	2		
		Construction programme/ Gantt chart	2		
		List of Equipment, Resource, Material	2		
		Technical Execution- Activities, Methods, level controls, etc...	2		
		Inspections and Testing / QCP	2		

**TET MEMBER RESPONSIBILITIES**

**Table 5: TET Member Responsibilities**

<b>Mandatory Criteria Number</b>	<b>TET 1</b>	<b>TET 2</b>	<b>TET 3</b>	<b>TET 4</b>
1	X	X		X
2	X	X		X
3	X	X		X
<b>Qualitative Criteria Number</b>	<b>TET 1</b>	<b>TET 2</b>	<b>TET 3</b>	<b>TET 4</b>
1.	X	X		X
2.	X	X		X
3.	X	X	X	X
4.			X	

3.5 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.5.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	Proposed QCP with the critical activities, without acceptable criteria or minor changes required that can be done after contract award
2.	
3.	
4.	

Table 7: Unacceptable Technical Risks

Risk	Description
1.	No ISO 9001 certification
2.	Inadequate Design experience
3.	Inadequate tender returnable.
4.	No method statement
5.	
6.	
7.	
8.	

**3.5.2 Exceptions / Conditions**

**Table 8: Acceptable Technical Exceptions / Conditions**

<b>Risk</b>	<b>Description</b>
1.	N/A

**Table 9: Unacceptable Technical Exceptions / Conditions**

<b>Risk</b>	<b>Description</b>
1.	N/A

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