

Title: **Tender Technical Evaluation Strategy for the supply of Turbovisory Equipment and Field Instrumentation**

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**Compiled by**



**Dumisani Chauke**  
**C&I System Engineer**

Date: 26/02/2026

**Functional Responsibility**



**Ndumiso Nxumalo**  
**Acting Grootvlei C&I Engineering Manager**

Date: 26/02/2026

**Authorised by**



**Thabo Montja**  
**Grootvlei Engineering Manager**

Date: 2026/02/26

## CONTENTS

	Page
<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>2. SUPPORTING CLAUSES.....</b>	<b>3</b>
2.1 SCOPE .....	3
2.1.1 Purpose .....	3
2.1.2 Applicability.....	3
2.2 NORMATIVE/INFORMATIVE REFERENCES.....	3
2.2.1 Normative .....	3
2.2.2 Informative.....	3
2.3 DEFINITIONS.....	3
2.3.1 Classification .....	3
2.4 ABBREVIATIONS.....	3
2.5 ROLES AND RESPONSIBILITIES.....	4
2.6 PROCESS FOR MONITORING.....	4
2.7 RELATED/SUPPORTING DOCUMENTS.....	4
<b>3. TENDER TECHNICAL EVALUATION STRATEGY .....</b>	<b>4</b>
3.1 TECHNICAL EVALUATION THRESHOLD .....	4
3.2 TET MEMBERS.....	5
3.3 MANDATORY TECHNICAL EVALUATION CRITERIA .....	6
3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA.....	8
TABLE 2: QUALITATIVE EVALUATION CRITERIA SCORING TABLE.....	8
3.5 TET MEMBER RESPONSIBILITIES .....	13
3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS.....	14
3.6.1 Risks.....	14
3.6.2 Exceptions / Conditions.....	14
<b>4. AUTHORISATION.....</b>	<b>16</b>
<b>5. REVISIONS .....</b>	<b>16</b>
<b>6. DEVELOPMENT TEAM .....</b>	<b>16</b>
<b>7. ACKNOWLEDGEMENTS .....</b>	<b>16</b>

## TABLES

Table 1: TET Members.....	5
Table 2: Mandatory Technical Evaluation Criteria.....	<b>Error! Bookmark not defined.</b>
Table 3: Qualitative Technical Evaluation Criteria.....	9
Table 4: TET Member Responsibilities.....	13
Table 5: Acceptable Technical Risks.....	14
Table 6: Unacceptable Technical Risks .....	14
Table 7: Acceptable Technical Exceptions / Conditions.....	14
Table 8: Unacceptable Technical Exceptions / Conditions .....	15

### CONTROLLED DISCLOSURE

## **1. INTRODUCTION**

The installed Turbine Control and Protection system requires the procurement of compatible spares to maintain system availability and support ongoing operation. The availability of the Turbine Control and Protection System spares is constrained in the market (particularly for legacy modules), and supply lead times and handling of electronic equipment present a delivery and quality risk. This tender therefore seeks to appoint a supplier to supply and deliver Turbine Control and Protection spares (new and/or second-hand) that meet Eskom requirements.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

The scope of this document is limited to the Tender Technical Evaluation Strategy and Criteria that will be used to evaluate bidders submitting tenders for the Supply and Delivery of Turbine Control and Protection spares at Grootvlei Power Station including the Turbovisory Equipment and Field Instrumentation.

#### **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 tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

#### **2.1.2 Applicability**

This document is applicable to the Turbine Control and Protection spares procurement in Grootvlei Power Station only.

### **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] 240-168966153: Generation Tender Technical Evaluation Procedure
- [2] 240-56355731 Environmental Conditions for Process Control Equipment Used at Power Stations Standard.

#### **2.2.2 Informative**

- [3] OEM/Manufacturer technical documentation (part numbers, revisions and compatibility).

### **2.3 DEFINITIONS**

#### **2.3.1 Classification**

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

### **2.4 ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
ANSI	American National Standards Institute
C&I	Control and Instrumentation
CE	Communauté Européenne ("European Community")
CIE	Control and Indicating Equipment
C.V.	Curriculum Vitae

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<b>Abbreviation</b>	<b>Description</b>
D&S	Design and Specification
EMC	Electromagnetic Compatibility
EN	“European Standard”
FM	Factory Mutual
IEC	International Electrotechnical Commission
OEM	Original Equipment Manufacturer
PPE	Personal Protective Equipment
RFI	Radio Frequency Interference
SANS	South Africa National Standards
SCADA	Supervisory Control and Data Acquisition
SME	Subject Matter Expert
TET	Technical Evaluation Team
TSI	Turbine Supervisory Instrumentation
Turbovisory	TSI system, which is designed to monitor and control the performance of turbines.
UL	Underwriters Laboratories
UPS	Uninterruptable Power Supplies

## **2.5 ROLES AND RESPONSIBILITIES**

Roles and responsibilities for the Tender Technical Evaluation Team (TET) shall be applied in accordance with 240-168966153: Generation Tender Technical Evaluation Procedure for Generation.

## **2.6 PROCESS FOR MONITORING**

N/A

## **2.7 RELATED/SUPPORTING DOCUMENTS**

N/A

## **3. TENDER TECHNICAL EVALUATION STRATEGY**

All bidders will be evaluated using the Qualitative Technical Evaluation Criteria. The qualitative criteria (and scoring methodology) will be used to assess the technical tender returnables submitted by bidders for the Supply and Delivery of Turbine Control and Protection spares including the Turbovisory Equipment and Field Instrumentation, in order to determine technically acceptable bidders.

The Qualitative Technical Evaluation Criteria, excluding weightings, shall be issued together with the market enquiry.

### **3.1 TECHNICAL EVALUATION THRESHOLD**

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70%.

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### 3.2 TET MEMBERS

**Table 1: TET Members**

<b>TET number</b>	<b>TET Member Name</b>	<b>Designation</b>
TET 1	Xolani Mkhwanazi	C&I Snr Supervisor Tech Maintenance
TET 2	Wenzile Dube	C&I Snr Supervisor Tech Maintenance
TET 3	Dumisani Chauke	C&I System Engineer
TET 4	Nonhle Shibe	C&I System Engineer

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### 3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

The Mandatory Technical Evaluation Criteria listed in Table 2 shall be used to determine which bidders qualify for further evaluation in the Qualitative Technical Evaluation phase.

**Table 2: Mandatory Technical Evaluation Criteria**

	Mandatory Technical Criteria Description	Mandatory Technical Criteria Description	Motivation for use of Criteria
1.	<p>The following safety/protection integrity components shall be procured from the OEM and/or OEM-approved vendors only, in accordance with the applicable OEM safety manual and/or equipment product manual. Second-hand spares are permitted only where the items are genuine OEM and traceable to an OEM or OEM-approved source. Unauthorised third-party substitutions are not permitted.</p> <p>OEM / OEM-approved only (safety/protection integrity components):</p> <ul style="list-style-type: none"> <li>• Monitor: Bearing Vibration – Type MMS 6120, 24VDC</li> <li>• Monitor: Shaft Displacement – Type MMS 6210</li> <li>• Monitor: Shaft Vibration – Type MMS 6110, 24VDC</li> <li>• Module: DW02, Overspeed monitoring – Type DW-1.2, D series</li> <li>• Button: Emergency Stop Push – Type Elan Schmersal SZT-42</li> <li>• Sensor: Speed – RNGE 0–6 MS, 5 VDCOEM</li> </ul>	<p>The tenderer must submit, for the applicable items:</p> <ul style="list-style-type: none"> <li>• OEM/authorised distributor letter or proof of OEM-approved vendor status, or traceable written confirmation of availability from an OEM-approved vendor referencing the relevant part numbers.</li> </ul>	<p>Ensures replacement components do not degrade the certified SIS/protection system performance and integrity by preventing introduction of unauthorised third-party devices. Supports compliance with OEM safety/product manual requirements, ESKOM Standard(s) (<b>240-83338028</b>) and reduces turbine protection/safety risk and plant risk.</p>

	<ul style="list-style-type: none"><li>• Converter: Eddy current signal, for turbine plant, Type: CON 011, Ser.9200-00001 (shaft position)</li><li>• Sensor: Eddy current displacement - Type PR 6424/000-100 - Ser.9200-00077 (shaft position)</li><li>• Converter: Eddy current signal for extended measuring range, turbine. plant, Type CON 011/916-160 - Ser.9610-00009(HP diff),</li><li>• Sensor: Eddy current displacement - Type PR 6426/000-100 - Ser.9210-00074 (HP)</li><li>• Converter: Eddy current signal for extended measuring range, turbine. plant, Type CON 011/916-240 - Ser.9610-00011 (LP diff),</li><li>• Sensor: Eddy current displacement - Type PR 6426/000-100 - Ser.9210-00074 (HP Diff)</li></ul>		
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**3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA**

Table 3 indicates the scoring method used for each qualitative evaluation criterion that is shown on Table 4 .

**TABLE 3: QUALITATIVE EVALUATION CRITERIA SCORING TABLE**

<b>SCORE</b>	<b>PERCENTAGE</b>	<b>DESCRIPTION</b>
5	100	<b>COMPLIANT</b> <ul style="list-style-type: none"> <li>• Meet technical requirement(s) AND</li> <li>• No foreseen technical risk(s) in meeting technical requirements.</li> </ul>
4	80	<b>COMPLIANT WITH ASSOCIATED QUALIFICATIONS</b> <ul style="list-style-type: none"> <li>• Meet technical requirement(s) WITH</li> <li>• Acceptable technical risk(s) AND/OR</li> <li>• Acceptable exceptions AND/OR</li> <li>• Acceptable conditions.</li> </ul>
2	40	<b>NON-COMPLIANT</b> <ul style="list-style-type: none"> <li>• Does not meet technical requirement(s) AND/OR</li> <li>• Unacceptable technical risk(s) AND/OR</li> <li>• Unacceptable exceptions AND/OR</li> <li>• Unacceptable conditions.</li> </ul>
0	0	<b>TOTALLY DEFICIENT OR NON-RESPONSIVE</b>

**Note:** Where the required supporting evidence for a criterion is not submitted, or where submissions are vague/general with no defined controls or proof, the bidder shall be scored **X = 0** for that criterion.

**Table 4: Qualitative Technical Evaluation Criteria**

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)	Score Qualification
<b>1.</b>	<b>Number of Similar Services</b>		<b>Tender Returnable: Contractor Experience and References.</b>	20	100	
	1.1	The tenderer shall demonstrate proven experience in supplying and delivering field instrumentation in an industrial or operational power generation environment. The tenderer must submit verifiable evidence of similar services executed within the last 5 years.	<p>The tenderer must provide a list of verifiable relevant references, with at least the following details per reference:</p> <ul style="list-style-type: none"> <li>• Client / site / project name</li> <li>• Brief description of scope (e.g., equipment supplied)</li> <li>• Contract/order number and dates</li> <li>• Value or approximate scope size (optional but helpful)</li> <li>• Completion evidence (completion certificate and/or signed delivery note and/or PO + close-out email)</li> <li>• Contact person name, role, email and telephone number</li> <li>• Confirmation that work was acceptable and delivered on time (or a client sign-off)</li> </ul> <p><b>Note:</b> Only references that are verifiable (contactable) and demonstrably similar will be scored.</p>	20	100	<p>Let <b>x</b> = number of similar services submitted and verified to be acceptable:</p> <p><b>5 = Compliant.</b> <b>x ≥ 5</b> similar services submitted and verified to be acceptable.</p> <p><b>4 = Compliant with associated qualifications.</b> <b>x = 3–4</b> similar services submitted and verified to be acceptable.</p> <p><b>2 = Non-compliant.</b> <b>x = 1–2</b> similar services submitted and verified to be acceptable.</p> <p><b>0 = Totally deficient or non-responsive.</b> <b>x = 0</b> similar services submitted and verified to be acceptable, and/or references not provided, not verifiable, or not relevant.</p>

2.	<b>Methodology for Correct Equipment Identification and Supply</b>	<b>Method statement and supporting process evidence for supply of TCS spares.</b>	<b>40</b>	<b>100</b>	
	2.1 The tenderer shall demonstrate a clear and practical methodology for identifying, verifying, sourcing and supplying the correct TCS spares in accordance with the specified part numbers, material numbers, equipment types, and applicable OEM requirements.	<p>The tenderer must provide the following as a minimum:</p> <ul style="list-style-type: none"> <li>• A: Method statement describing the process for identification, verification, sourcing and supply of the requested spares</li> <li>• B: Example of a part verification/checking document, checklist, or internal control sheet (showing how part number/type/revision is checked)</li> <li>• C: Example of traceability/QA record or sample delivery pack format (e.g., item identification, source reference, PO linkage, delivery note format)</li> </ul> <p>The methodology shall, as a minimum, address:</p> <ul style="list-style-type: none"> <li>• How the tenderer verifies part numbers/material numbers and equipment types against the tendered spares list</li> <li>• How the tenderer manages revisions/variants/serial number differences (where applicable)</li> <li>• How the tenderer controls substitutions (if applicable) and obtains approval before supply</li> <li>• How the tenderer verifies OEM / OEM-approved sourcing for</li> </ul>	<b>40</b>	<b>100</b>	<p><b>5 = Compliant.</b> Submitted a clear, detailed and practical methodology with defined controls for part identification, verification against specifications/part numbers, traceability, and management of uncertainties/substitutions. Supporting evidence submitted is sufficient to demonstrate that the process is implemented.</p> <p><b>4 = Compliant with associated qualifications.</b> Methodology is provided and generally acceptable but contains minor gaps in detail and/or supporting evidence. Risk of incorrect supply remains low to moderate.</p> <p><b>2 = Non-compliant.</b> Methodology is incomplete, unclear, or lacks defined controls (e.g., does not address verification steps, traceability, or substitution control adequately), and/or supporting evidence is insufficient. Risk of incorrect supply is high.</p>

			<p>safety/protection integrity components (where applicable)</p> <ul style="list-style-type: none"> <li>How the tenderer performs receiving/dispatch checks to prevent incorrect items being delivered</li> <li>How non-conforming or uncertain items are identified, escalated and resolved before delivery</li> </ul> <p>Important: Vague statements such as “we will supply as per spec” without a defined process/controls shall be treated as A not submitted.</p>			<p><b>0 = Totally deficient or non-responsive.</b> No methodology is provided, or the submission is vague/generic (e.g., “we will supply as per spec”) with no defined controls, and/or required tender returnables are not submitted.</p>
<b>3.</b>	<b>Handling, Packaging and Transportation of Electronic Equipment</b>		<b>Tender Returnable: Handling, Packaging and Transportation Method and Evidence</b>	<b>40</b>	<b>100</b>	
3.1	<p>The tenderer shall demonstrate competence in the handling, packaging and transportation of electronic control and instrumentation equipment (including legacy cards/modules) to prevent:</p> <ul style="list-style-type: none"> <li>Electrostatic discharge (ESD) damage</li> <li>Mechanical damage (shock, vibration, connector damage)</li> <li>Moisture and corrosion damage during storage/transport</li> <li>Loss of traceability (mix-ups of part numbers/revisions/serial numbers)</li> </ul>	<p>The tenderer must provide the following as a minimum (<b>evidence</b>):</p> <p><b>A:</b> Method statement/report describing how electronic equipment will be handled and protected during transportation (ESD, physical protection, labelling/traceability, moisture where applicable).</p> <p><b>Important:</b> Vague or generic statements like “we will package safely” or “standard packaging will be used”, with weak/no controls described, will be treated as A not submitted.</p>	40	100	<p><b>5 = Compliant.</b> Submitted a clear, detailed and practical methodology with defined controls for part identification, verification against specifications/part numbers, traceability, and management of uncertainties/substitutions. Supporting evidence submitted is sufficient to demonstrate that the process is implemented.</p> <p><b>4 = Compliant with associated qualifications.</b> Methodology is provided and generally</p>	

		<p>The tenderer must provide a brief description explaining how electronic equipment will be handled from dispatch to delivery, including packaging, labelling, and transportation controls.</p> <p>Packaging, handling and transportation shall comply with Eskom standards and shall conform to Eskom Standard <b>240-56355731 (Environmental Conditions for Process Control Equipment Used at Power Stations)</b>, or an equivalent method that meets/exceeds its intent. The method statement (A) must state how this compliance is achieved.</p>	<p><b>B:</b> Proof of competence: training certificate(s) for ESD/electronic handling or CV(s) clearly showing relevant work experience in handling/packaging electronic/instrumentation equipment.</p> <p><b>C:</b> Packaging proof: example packaging photos or a packing checklist/template from previous work.</p>			<p>acceptable but contains minor gaps in detail and/or supporting evidence. Risk of incorrect supply remains low to moderate.</p> <p><b>2 = Non-compliant.</b> Methodology is incomplete, unclear, or lacks defined controls (e.g., does not address verification steps, traceability, or substitution control adequately), and/or supporting evidence is insufficient. Risk of incorrect supply is high.</p> <p><b>0 = Totally deficient or non-responsive.</b> No methodology is provided, or the submission is vague/generic (e.g., “we will supply as per spec”) with no defined controls, and/or required tender returnables are not submitted.</p> <p><b>Note on “no submission”:</b></p> <p>If the bidder submits a document for <b>A</b> but it is vague/generic with no real controls, score it as <b>A not submitted</b> for the purposes of the above scoring.</p>
				<p><b>TOTAL:</b> <b>100</b></p>		

### 3.5 TET MEMBER RESPONSIBILITIES

Table 5 identifies the TET members that have been allocated to evaluate each Qualitative criterion (minimum 2 evaluators per criteria / sub-criteria).

**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>
	X	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. – 5.	X	X	X	X

### 3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

#### 3.6.1 Risks

**Table 6: Acceptable Technical Risks**

Risk	Description
1.	Used spares condition variability. Used/second-hand spares may have cosmetic wear, provided functional integrity is evidenced and warranty applies.
2.	Market constraints / obsolescence. Some part numbers may have limited market availability, risk acceptable where bidder provides partial sourcing proof with realistic lead times.

**Table 7: Unacceptable Technical Risks**

Risk	Description
1.	Counterfeit/unknown origin risk. Spares sourced from unknown/grey-market suppliers with no traceability/serial tracking controls.
2.	Inadequate packaging/ESD controls. No credible method statement for ESD protection and damage prevention during transportation (vague statements).
3.	No warranty/recourse. Bidder refuses warranty/returns process for supplied spares (especially used spares).

#### 3.6.2 Exceptions / Conditions

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

Risk	Description
1.	Partial sourcing proof. Sourcing proof covers only part of the scope at tender stage, on condition that full sourcing proof is provided prior to order placement or within an agreed timeframe.
1.	Used spares supplied. Used spares acceptable on condition of functional test evidence (where available), correct identification, and a minimum warranty period.
2.	Where completion certificates are not available, signed delivery notes + PO + client confirmation accepted as equivalent proof.

3.	Alternative packaging procedure acceptable if it demonstrably meets/exceeds the intent of Eskom 240-56355731.
4.	Lead time may be dependent on OEM stock; acceptable if bidder provides written availability confirmation and updates are communicated promptly.

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

<b>Risk</b>	<b>Description</b>
1.	No ESD packaging. Any condition proposing shipment without anti-static packaging / ESD controls
2.	“As-is” with no recourse. Any condition proposing used spares sold “voetstoots/as-is” with no warranty/return option.

#### 4. AUTHORISATION

This document has been seen and accepted by:

<b>Name</b>	<b>Designation</b>
Xolani Mkhwanazi	C&I Snr Supervisor Tech Maintenance
Wenzile Dube	C&I Snr Supervisor Tech Maintenance
Dumisani Chauke	C&I System Engineer
Nonhle Shibe	C&I System Engineer
Reggy Mali	Chief Technologist Engineer
Lebo Mkhonto	C&I Maintenance Manager
Ndumiso Nxumalo	Snr Advisor Engineering
Bothata Mokoena	C&I System Engineer

#### 5. REVISIONS

<b>Date</b>	<b>Rev.</b>	<b>Compiler</b>	<b>Remarks</b>
January 2026	1.0	D. Chauke	Complied first draft and submitted for review.

#### 6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- C&I Engineering Team

#### 7. ACKNOWLEDGEMENTS

- The C&I Engineering Team.

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