

	Report	Distribution Operating Unit Gauteng
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1. Introduction

This document has been developed to set the standard technical evaluation criteria to be used when evaluating tender submissions by civil and electrical maintenance contractors for MV XLPE- and PILC- insulated cable system in Eskom Distribution Gauteng Cluster (GC). The technical evaluation criteria are developed in line with the Eskom MV cable system standards. The civil scope includes but is not limited to: River crossing, road crossing, MV cable joint bay, MV cable installation; and the electrical scope includes but is not limited to: River crossing, road crossing, MV cable decommissioning, MV cable jointing and joint bays, MV cable termination, MV cable installation, MV switchgear installation (indoor switchgear, mini-sub, RMUs, CT-VT units etc.), reinstatement of surfaces, sheath repair.

2. Supporting Clauses

2.1 Scope

These technical evaluation criteria cover the minimum technical requirements for civil work and electrical work to be conducted on the MV XLPE- and PILC-insulated cable system with nominal voltages from 11 kV up to and including 22 kV for maintenance purposes.

2.1.1 Purpose

This document was compiled to provide technical evaluation criteria for civil and electrical scope of work for MV XLPE- and PILC-insulated cable system to ensure contractor compliance to standard within Eskom Distribution. It is applicable only for the purpose of performing contractor tender evaluations for the maintenance of MV cable systems in GC.

2.1.2 Applicability

This document shall apply for Eskom Distribution, GC.

2.1.3 Effective date

The effective date of this document is the same as the authorised date.

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] ISO 9001, Quality Management Systems
- [2] SANS 10198,
- [3] 240-56030635, General Information and Requirements for Medium Voltage Cable Systems

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- [4] 240-56063792, Specification for Medium Voltage XLPE- and Impregnated Paper-Insulated Cable Standard
- [5] 240-560303619, Accessories For Medium-Voltage Power Cables for Systems with Nominal Voltages of 11kV To 33kV Standard
- [6] 240-45683927, Compaction Testing on Cable System Installations
- [7] 240-133975392, The Inspection, Maintenance and Testing of MV Cable Systems
- [8] 240-130615754, Distribution Type – Part 2: Distribution Standard: Part 2: Earthing. Section 1: MV and LV Distribution System Earthing
- [9] 240-120804300, Standard for the Labelling of Electrical Equipment within Eskom Wires Networks

2.2.2 Informative

- [10] 32-9: Definition of Eskom documents.
- [11] 32-644: Eskom documentation management standard.
- [12] 474-65: Operating manual of the Steering Committee of Technologies (SCOT).

2.3 Definitions

Definition	Description
Valid and certified	Within the expiry date and certification not older than 3 months by close of tender

2.4 Abbreviations

Abbreviation	Description
DCP	Dynamic cone penetrometer
ECB	Electrical Contractors Board
GC	Gauteng Cluster
MV	Medium voltage
OHS Act	Occupational Health Services Act
ORHVS	Operating regulations for high voltage system
PDE	Power Delivery Engineering

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Abbreviation	Description
POE	Portfolio of evidence
PILC	Paper insulated lead cable
PPE	Personal protective equipment
PVC	Polyvinyl chloride
SI	Standards Implementation
US ID	Unit standard identification
XLPE	Cross-linked polyethylene

2.5 Roles and Responsibilities

All Eskom employees and/or appointed bodies involved in the qualification process of contractors to perform the maintenance on MV cable systems shall ensure that the contractors being evaluated meet the requirements of this standard. Any deviation from these requirements shall constitute non-conformance, unless it was in advance agreed to by a delegated cable system evaluating engineer and is based on sound engineering judgement.

All MV cable systems maintenance contractors shall ensure that they obtain clarity where required and obtain all supporting information or documents necessary to comply with this document.

2.6 Process for Monitoring

Acceptance of bidding contractors for the maintenance of MV cable systems shall be based on fully compliant submissions of documents and proving capability of providing the required service during equipment/tools and premises evaluations.

2.7 Related/Supporting Documents

Refer to clause 2.2.

3. Requirements

This document contains the technical evaluation criteria for the XLPE and PILC-insulated MV cable systems maintenance contractors in Eskom Distribution, GC. The evaluation methodology consists of two stages namely 1) the submitted documentation evaluation and 2) premises evaluation where equipment and tools are verified.

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The technical evaluation exercise is performed by the Eskom evaluating representatives. The initial part of the evaluation starts when submissions are opened and assessed for the first time. The submitted documents will be evaluated against the mandatory and scoring technical evaluation criteria as stated in clauses 3.2.1 and 3.2.2 respectively. Should a tenderer fail to meet any one of the mandatory requirements as indicated in 3.2.1, then they will automatically be disqualified. The documentation evaluations are meant for establishing if all the key tender deliverables are met regarding the maintenance of XLPE and PILC-insulated MV cable system.

The second part of the evaluation is the verification of tender documentation submissions that takes place at the tenderer's premises as per clause 3.1. Each contractor must pass the mandatory evaluation as well as achieve a minimum score of 70% in the scoring phase of the documentation evaluation as stipulated in 3.2.2 to qualify for premises evaluation. Any score below 70% will result in immediate disqualification.

At the end of the premises evaluation, the Eskom evaluating representative(s) will list all the deviations and identified risks, if any. The representatives will conduct a formal discussion of the deviations and risks in line with stipulated Eskom's requirements with the tenderer. The tenderer that fails to demonstrate the 70% compliance to tables 1 and 2 at the premises evaluation will be disqualified.

3.1 Premises evaluation

The following will be checked at the contractor's premises:

- Owned vehicles and their documents, or signed hiring letters
- Owned tools and equipment
- List of hired tools and equipment and their signed hiring letters
- Original training certificates, matching the submitted certified copies
- Proof of employment for personnel with submitted certificates (e.g. employment contracts etc.)
- General housekeeping (e.g. how tools and equipment are kept)

3.2 Evaluation criteria

The technical evaluation criteria comprise mandatory and scoring phases.

3.2.1 Table 1: Technical Evaluation Criteria for MV cable systems Contractors: Mandatory Requirements

TASK / MEASURE	
Criteria	Acceptance: Yes/No
Provide proof of company's registration for Eskom PDE website access.	

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TASK / MEASURE	
Criteria	Acceptance: Yes/No
Submit a signed copy of the provided tools and equipment list in annexure A and indicate if the tools and equipment are owned or hired. Hiring letters from bona fide companies must be provided for hired tools/equipment.	
Submit a signed copy of the vehicle list in annexure B and indicate if they are owned or hired. Certified copies for proof of ownership and/or hiring letters from bona fide companies must be provided. Note: At least 1 bakkie shall be owned; with proof of ownership in the tendering company or director's name on it. Lack of proof of ownership for at least 1 bakkie will lead to disqualification.	
Provide a copy of a signed company procedure of how soil compaction is measured.	
Provide valid copies of your training certificates for cable jointers certified by the commissioner of oath. A minimum of two MV cable jointing and termination certificates with the following requirements will be accepted: <ul style="list-style-type: none"> With US ID 259189 (MV cable jointing) and US ID 259187 (MV cable terminations), OR unit standard 243668 (Joint and terminate a range of 11kV-33kV cables in a range of settings) Training provider with EWSETA/ESETA accreditation confirming competence Cable accessories OEM MV cable jointing and termination training 	
Submit a fully completed and signed copy of the Linesman register in annexure E. Any missing information will lead to disqualification.	
Provide a valid and certified ORHVS certificate	
Provide valid certified training copies for responsible person or team leader as per the POE checklist in annexure C and all certificates shall be for one resource or provide a valid Gauteng MV cable authorisation. The POE checklist shall be signed.	
Provide valid certified copies of construction regulation training certificates.	
Provide an affidavit per employee, completed by the resources named on all the certificates submitted. The affidavit must confirm that the employee works for the tendered company and must be certified by a Commissioner of Oath.	

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TASK / MEASURE	
Criteria	Acceptance: Yes/No
Submit a completed and signed declaration form in annexure F stating that the information submitted is accurate and true and must be certified by the Commissioner of oath.	

3.2.2 Table 2: Technical Evaluation Criteria for MV Contractors: Scoring

TASK / MEASURE		
Criteria	Source of evidence	Weighting
<p>Complete the template on annexure D, which is confirmation and history of at least 5 maintenance/breakdown projects that were performed by your company's qualified personnel, related to the following scope:</p> <p>The civil scope includes but is not limited to: River crossing, road crossing, MV cable joint bays, MV cable installation; and the electrical scope includes but is not limited to: River crossing, road crossing, MV cable decommissioning, MV cable jointing and joint bays, MV cable termination, MV cable installation, MV switchgear installation (indoor switchgear, mini-sub, RMUs, CT-VT units etc.), reinstatement of surfaces, sheath repair. sheath repair.</p> <p>The above required project references shall indicate and provide the project name, customer name, customer contact details, the operating voltage, conductor size, year of execution, quantity (total length of cable and number of accessories), contact details of the utility/customer representatives, their titles, addresses, emails and telephone numbers.</p> <p>NB: Experience should cover both MV XLPE- and PILC-insulated cable system projects. 4 points for each project</p>	<p>Appointment letter/task orders and completion certificates</p>	<p>20</p>

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TASK / MEASURE		
Criteria	Source of evidence	Weighting
Method statement for soil compaction and testing.	Clearly written technique used when doing soil compaction	5
MV cable jointing and terminating valid and certified certificates: Notes: 2 minimum submitted is 18% 1% for additional certificate	Submitted certificates	20
Equipment and tools list NB: Suppliers will be awarded 70% of the score for hired tools, and 30% of the overall score if all tools and equipment are hired.	Print and complete the provided tool/equipment list on annexure A and sign, or provide hiring letter from bona fide hiring company	25
Vehicles list (Bakkie, 5-10 Ton crane truck, TLB, Staff transport) Note: Bakkie: Submit Maximum 3, minimum 1, Total = 9%, Each = 3% Crane truck: Submit 1, total = 3% TLB: Submit 1, total = 3% Staff transport: Submit maximum 2, minimum 1, Total = 2%, each = 1%	Print and complete the vehicle list on annexure B and sign. Also provide certified copies of vehicle documents, and/or provide hiring letter from bona fide hiring company. 1 bakkie must be owned.	16
Suitable PPE for all staff (registers signed by each employee) and PPE Matrix.	Signed PPE register	5
Company premises (office and storage).	Proof of physical address (e.g. municipality statements, etc.)	4
In what manner do you deal with external authority'/utility's services. (e.g. Road agencies, Water services, Telecommunication services etc.)? State how required paperwork is completed before and after the work is completed.	Company's internal written procedure	5
TOTAL		/100

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TASK / MEASURE		
Criteria	Source of evidence	Weighting

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Brian Maseko	Manager: Standards Implementation (GC)
Mphathutshedzeni Mudau	Manager: Technical Support (GC)
Mlondolozi Limaphi	Manager: Power Plant Maintenance (GC)

5. Revisions

Date	Rev.	Compiler	Remarks
May 2020	1	S Mtshaulana	New document. It has been compiled for GOU to conduct technical evaluations on MV cable system contractors.
March 2025	2	S Mtshaulana	Table 1.: Deleted "MV switchgear termination certificate as a requirement. Annexure A: Added weight on tools and equipment requirements Amended mandatory and scoring requirements, and added more technical requirements in the document

6. Development Team

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

- Sandisiwe Mtshaulana Engineer (SI)

7. Acknowledgements

None

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Annex A – Tools and Equipment list

Tools/Equipment	QTY	Weight	Owned/Hired
Steel Barricading, concrete barricading and steel guard rails for trenches as per construction regulations. Minimum of 50 meters.		1	
Shoring equipment (timber, steel supports, struts) as per construction regulations. Minimum of 50 meters.		0.5	
Road crossing steel plates (with hoisting equipment) – Heavy vehicular traffic.		0.5	
Trench crossing walkways for pedestrians / light vehicular traffic (driveways etc.)		0.5	
Road traffic signage (road works/construction ahead, lane closed/road narrowing, detour, no through road, road closed, chevrons, stops signs, flag men, Stop/go, etc.)		0.5	
Cable winch, dynamometer (pulling strain), jack stands and steel rope.		0.5	
Cable bond pulling and nose pulling (pulling eye / pulling socks) equipment.		0.5	
Cable corner/guide rollers (10, sufficient for at least 10 corners).		0.5	
Cable rollers and skids (50, sufficient for every 2m of cable installed).		0.5	
Hand excavation tools (picks, beaded spades, etc.) 2 beaded minimum.		0.5	
Mechanical excavator (machine) (e.g. TLB).		1	
Rock drills (for boulder busting).		1	
Pipe jacking equipment, rock blasting		1	
Directional drilling machines		1	
Compressors.		0.5	
Jackhammers.		1	

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Tar (asphalt) / concrete road surface cutter (angle grinder).		1	
Bulleting machine		1	
Hand compacting tools (stampers).		0.5	
Mechanical compacting machinery ('rammer'/'wacker').		1	
Mechanical compacting roller (e.g. 'Bomag').		0.5	
Soil compaction testing equipment (DCPs).		1	
Soil sieve of 12mm mesh size		0.5	
A.C. (230V) generators (for lighting, bentonite mixing equipment, etc.), min of 2.		0.5	
Lighting equipment (for joint bays etc.), min 2 sets.		0.5	
Submersible water pump.		0.5	
Equipment for punching labels onto Al/Cu plates, Stencils.		0.5	
Equipment for cutting cables, electric saws, hacksaw etc.		1	
Tools for jointing/terminating MV cables (XLPE and PILC); (specify tools e.g. installation tool for mechanical connectors, scoring tool)		1	
Hexagonal die crimping tools and suitable dies for compression fittings.		1	
Gas flame/torch equipment (e.g. for heat shrink application).		0.5	
Cylindrical brushes / close fitting mandrels to clean pipes before pulling cable.		0.5	
Bellmouths for pulling cable into PVC pipes.		0.5	
Bentonite equipment (mixer and pump etc.) for pipes		0.5	
Cast-on-site concrete mixing equipment (mixer)		0.5	
Hand held radios, 3 sets min.		0.5	

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MV joint bay protective weather cover (e.g. waterproof tent)		0.5	
--	--	-----	--

Signature: _____ Date: _____

Company rep name: _____ Company name: _____

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Annex B – Vehicles list

Vehicles	QTY	Registration number	Owned/hired
Bakkie			
Staff transport			
Crane truck			
TLB			

Signature: _____ Date: _____

Company rep name: _____ Company name: _____

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Annex C – POE Checklist

Mandatory Requirements: Portfolio of Evidence			
		Valid	
No	Minimum Valid certificates required	Yes	No
1	First Aid Level 2		
2	Basic Fire fighting		
3	Supervision		
4	Occupational Medical certificate		
5	Risk Assessment		
6	Equipotential Earthing		
7	ORHVS HVO2		
8	Understanding the fundamentals of Electricity or N2 in Electrical Engineering		
9	High Voltage environment and regulations awareness		
10	Working From Heights and rescue		
11	Environmental awareness		
12	OHS Act certificate		
Company name:		Name of employee:	Title:
Signature:		Date:	

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Annex D – Project history template

Company Name					
Project name	Customer name	Operating voltage	Conductor size	Year of execution	Contact details of utility/customer representatives, their titles, addresses, emails and telephone numbers
1.					
2.					
3.					
4.					
5.					

Signature: _____ Date: _____

Company rep name: _____ Company name: _____

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Annexure E – Linesman register

A No.	B Full Name	C ID Number	D Training Course	E Training Facility	F Training Facility Contact details		G Currently Employed at Tendering Company with Affidavit as Proof (Y / N)
					Contact Person name	Contact details(cell or Landline)	
E.G	First Name Last Name	1234567890123	MV / ELW 002 - 010	TET	xxxxxxxxxxx	xxxxxxxxxxxxxxx	Y
1							
2							
3							
4							
5							

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Signature:_____

Date:_____.

Company rep Name:_____

Company name: _____.

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Annexure F: Company declaration

Company/Tenderer Name: _____

Enquiry number: _____

I,Hereby declare that all information provided in **Table 1** of technical evaluation criteria is accurate, truthful and correct. And that I am Aware that Eskom reserves a right to request validation of all information submitted for the purpose of a tender enquiry. Furthermore, Eskom has a right to take legal action or disqualify a tenderer, should that tenderer be found to have misrepresented themselves whether wilfully or unwilfully.

Signature of Company Rep: _____ ID No: _____

Sworn to/affirmed before me at on this the ____ day of _____ (Month & Year). Commissioner of Oaths/Justice of Peace:
..... (Commissioner's stamp, with signature and date not older than three months from the date of tender closure).

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