

	Standard	Cape Coastal Cluster
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Title: **TECHNICAL EVALUATION
CRITERIA FOR NEW SULPHUR
HEXAFLUORIDE (SF₆) GAS
SUPPLIED IN STANDARD GAS
CYLINDERS**

Document Identifier: **559-399862082**

Alternative Reference n/a
Number:

Area of Applicability: **Cape Coastal Cluster**

Functional Area: **Engineering**

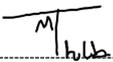
Revision: **1**

Total Pages: **10**

Next Review Date: **June 2030**

Disclosure Classification: **Controlled Disclosure**

Compiled by



Tebello Mahlaba
Chief Engineer Prof.
Eng.

Date: 04/09/2025

Functional Responsibility



Freddy Mvula
Distribution Switchgear
Care Group Chairperson

Date: 11 September 2025

Authorized by



Sikelela Mkhabela
Senior Manager
Maintenance and
Operations (CCC-EC)

Date: 11 September 2025

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1. Introduction

This document is necessary for providing a technical evaluation criteria for submissions on the supply of SF₆ in standard gas cylinders. This document shall be used in conjunction with the specification for new SF₆ supplied in standard gas cylinders, referenced in 2.2.1, below. The use of this criteria in conjunction with the afore mentioned specification will ensure that all suppliers are scored on the same basis and with transparency.

The method of evaluation is detailed in this document and based on the tender returns stipulated in Appendix A.

2. Supporting Clauses

2.1 Scope

This document covers only the evaluation criteria for new SF₆ supplied in standard type gas cylinders for use in electrical apparatus employing SF₆ as insulation and/or interruption medium. It does not cover the requirements as these are stipulated in the specification reference in section 2.2.1 of this document.

2.1.1 Purpose

The purpose of this document is to record the standardized scoring method for the above scope.

2.1.2 Applicability

This document shall apply throughout Eskom Holdings Limited Distribution Division's Cape Coastal Cluster.

2.1.3 Effective date

The date from which this document is effective is the same as the authorisation date of this document as per the "Authorized by" signatory in the document cover page.

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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

The following documents are indispensable for the application of this document and should be used together with this document.

- [1] ISO 9001 Quality Management Systems
- [2] 559-344083080, Specification for New SF6 Gas Supplied in Standard Gas Cylinders

2.2.2 Informative

The following documents are further sources of information referenced in this document.

- [3] 32-1034 Eskom procurement and supply management procedure
- [4] 240-53207174 Practice note and guide on the implementation of the Preferential Procurement Policy Framework Act (PPPFA)

2.3 Definitions

The following definitions are applicable to this document.

Definition	Explanation
Contractor	Refers to the supplier or bidder
Mark(s)	Means a point in the scoring system
Point(s)	Means a mark on the scoring system
Technical evaluator	End-users, technical experts nominated by the end-user and Divisional technical functionaries with the necessary technical expertise. NB: The switchgear technical evaluation shall be performed by the switchgear representatives in the Commodity Cross Functional team.
Tender returns	A document(s), populated or compiled by the bidder, returned as a response to a tender and were part of the requirements at the time of issuing the enquiry.
Threshold for Qualification	This is the threshold that has been determined by Eskom Technical evaluation, which the submission must meet to proceed with the technical evaluation after scoring stage.

2.4 Abbreviations

All abbreviations stated in the specification 559-344083080, apply.

2.5 Roles and Responsibilities

All the Eskom employees and/or appointed bodies involved in the tender technical evaluation shall use this criterion.

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2.6 Process for Monitoring

The relevant SCOT Care Group will periodically evaluate this document and its relevance.

2.7 Related/Supporting Documents

Where technical schedules (AB schedules) are issued with the tender enquiry, the schedule A of the technical schedules shall form part of the evaluation. It should however be noted that technical schedules are generally not issued for enquiries related to specification 559-344083080 titled "Specification for New SF6 Gas Supplied in Standard Gas Cylinders".

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3. Evaluation Method and Requirements

3.1 Methodology

The technical evaluation shall constitute two separate stages namely:

- a. A desktop evaluation exercise of evaluating the tender returns and
- b. An onsite factory/OEM/supplier/bidder capability assessment.

3.2 Desktop Evaluation Exercise

The desktop evaluation exercise for this evaluation criteria does not have mandatory requirements but only has scored discretionary requirements. Meeting the discretionary requirements threshold for qualification is a prerequisite for the second stage i.e. onsite factory/supplier/bidder capability assessment.

The discretionary requirements are as Appendix A, below. The qualification threshold for discretionary requirements is 90%.

3.3 Onsite factory/OEM/supplier/bidder capability assessment

Onsite factory/OEM/supplier/bidder capability assessments are a pre-contract requirement and are mandatory for each factory/supplier/bidder that is intended to supply new SF6 gas supplied in standard gas cylinders to the Cluster. Factory/OEM/supplier/bidder with a valid accreditation, as per the Eskom list or are in possession of the relevant accreditation letter that is not older than twelve months, will be exempted from the onsite capability assessment requirement.

4. Acceptance

This document has been seen and accepted by:

Full Name and Surname	Designation
Sikelela Mkhabela	Senior Manager Maintenance and Operations Eastern Cape
Promise Ntuli	Senior Manager Maintenance and Operations Western Cape
Dumza Masingata	Middle Manager Plant Management Eastern Cape
Angus Mouton	Middle Manager Plant Management Western Cape
Dumisani Nkambule	Manager Power Plant Maintenance Eastern Cape
Rustum Emjedi	Manager Power Plant Maintenance Western Cape
Freddy Mvula	Distribution Switchgear Care Group Chairperson
Vuyani Masuku	Technology & Engineering Switchgear Chief Engineer

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5. Revisions

Date	Rev.	Compiler	Remarks
August 2025	1	Tebello Mahlaba (adopted from Frik Schoeman)	First issue specific to the Cluster. New and updated technical requirements for tactical sourcing of new SF6 gas supplied in standard gas cylinders.

6. Development Team

This document was developed from an adopted document authored and developed by Frik Schoeman and a National Transmission Company of South Africa (NTCSA) development team. The adopted document was then tailored to suite the Cluster needs.

The following members of the Eskom Distribution Division Switchgear Care Group participated in the tailoring and further development of this document:

- Abdullah Ebrahim Senior Engineer Power Plant Maintenance Distribution Switchgear Care Group Member
- Freddy Mvula Senior Technologist Engineer Maintenance and Operations Centre of Expertise Distribution Switchgear Care Group Chairperson
- Tebello Mahlaba Chief Engineer Maintenance and Operations Distribution Switchgear Care Group Member

7. Acknowledgements

The Author, Cluster and Distribution Switchgear Care Group acknowledges Frik Schoeman for authoring and compiling the requirements herein adopted for use by the Cluster. Furthermore, all who authored and contributed to the previous versions of this document i.e. made input on this document from its first draft version.

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Appendix A – Desktop Discretionary Requirements Evaluation

All evidence is to be provided in writing at tender submission as stipulated in the evaluation tables below.

The process must be made known to the client, which process was followed by the supplier to supply the gas to the end user. A letter of disclosure/confirmation of the process is required as part of the documents to be submitted.			
Was the bottles filled by the supplier from a bulk supply obtained from the OEM		Was this bottle pre-filled before the supplier obtained it from the OEM	

No	Description	Proof to be submitted with the tender	Weight %	Score%
1	<p>SF6 is to be supplied preferably in Class 1 steel standard type gas cylinders in which the SF6 is stored in liquid form under its own vapor pressure when the cylinder is fully charged. Class 3 cylinders will be accepted but not at 11% compliance.</p> <p>11% - Proof of Letter of confirmation that product is supplied in class 1 steel cylinders.</p> <p>6% - Proof of Letter of confirmation that product is supplied in class 3 cylinders.</p> <p>0% - No proof of confirmation of the intent to supply in class 1 steel cylinders</p>	Letter from OEM to confirm the supply of class 1 steel or class 3 cylinders	11%	
2	<p>The required purity of new SF6 to be supplied for SF6 insulated equipment is detailed in the latest edition of IEC 60376</p> <p>11% - Product Data Sheet confirms compliance to IEC60376</p> <p>0% - No product sheet supplied, or Data sheet does not confirm compliance to IEC60376</p>	Proof of compliance to IEC60376 with product data sheet	11%	

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No	Description	Proof to be submitted with the tender	Weight %	Score%
3	<p>The proof of the SF6 purity shall be supplied in the form of a traceable bottle specific certificate from Original Supplier. No batch certificate will be accepted.</p> <p>11% - Letter of commitment to supply SF6 according to IEC60376 0% - No proof of commitment to supply SF6 according to IEC60376</p>	Letter of commitment to ensure that each bottle is supplied with a traceable reference label verifying bottle and related contents quality	11%	
4	<p>The SF6 capacity of each cylinder shall be either 50 (+/- 3) kilograms (in a 50-liter bottle), 20 (+/- 2) Kilograms (in a 20-liter bottle) or 10 (+/- 1) kilograms (in a 10-liter bottle) according to the purchasing requirement Bill of Material.</p> <p>11% - Compliance to content weight / size ration stated above. 0% - Not complying to weight / size ration stated above</p>	Confirmation of bottle content weights (on quote supplied)	11%	
5	<p>A removable valve cap shall be supplied with each cylinder and NO Guard ring will be supplied with the bottle.</p> <p>11% - Removable valve cap supplied as stated above. 0% - No Removable valve cap supplied as stated above.</p>	Letter of confirmation that bottle/s will conform to requirement	11%	
6	<p>The marking of SF6 gas cylinders (Class 1 steel category) shall be according to its contents. (Marked as SF6 / Sulphur Hexafluoride in black painted letters vertically down the length of the bottle of at least 75mm in the case of the 50kg bottle)(20 and 10 kg bottles lettering proportionally sized)</p> <p>11% - Letter of confirmation that cylinders will be marked as stated above. 0% No proof that confirms the intent to mark bottles.</p>	Letter of confirmation that bottle/s will conform to requirement	11%	

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No	Description	Proof to be submitted with the tender	Weight %	Score%
7	<p>Cylinder stampings shall comply with the requirements of an approved manufacturing standard according to the requirements of SANS 10019 standard.</p> <p>11% - Cylinder Specification confirms compliance to SANS 10019 0% - No proof of cylinder compliance to SANS 10019</p>	<p>Letter of confirmation that bottle/s will conform to requirement</p>	11%	
8	<p>The shutoff valve outlet shall be in accordance with SANS 10019 (Table 9, line item 25; Table 10 namely non-flammable gas) [4] which is to [7] British Standard BS341-3, valve no. 6. It is a 5/8" BSP RH External thread that accepts a fitting having a flat seal and gasket.</p> <p>12% - Compliance to valve requirements stated above. 0% - Different valve specification and no fitting supplied with each cylinder</p>	<p>Confirmation of valve type fitted to bottles.</p>	12%	
9	<p>The SF6 gas cylinders require hydrostatic testing (hydraulic burst test) every 10 years. The supplier shall provide Eskom the copy of the valid test Certificate of hydrostatic testing (hydraulic burst test). The Certificate shall be in an acceptable form similar to Annex D of SANS/ ISO 9809 standard.</p> <p>Very important: Eskom shall accept cylinders that have a legible hydrostatic test date stamped on them and that gas shall be accepted in cylinders that have at the minimum 3 years remaining before next hydrostatic test due date.</p> <p>11% - Letter of confirmation that cylinders to be provided will have a valid hydrotesting certificate valid for more than 3 years. 0% - No letter of confirmation that cylinders will have valid hydrostatic test certificate valid for longer than 3 years.</p>	<p>Letter of confirmation that bottle/s will conform to requirement and copy of a valid test Certificate of hydrostatic testing (hydraulic burst test)</p>	11%	

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