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CONTENTS

	Page
1. SUPPORTING CLAUSE-S.....	3
1.1 SCOPE	3
2. INTRODUCTION	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.....	4
2.2.3 Classification	4
2.3 ABBREVIATIONS.....	4
2.4 ROLES AND RESPONSIBILITIES.....	4
2.5 PROCESS FOR MONITORING.....	4
2.6 RELATED/SUPPORTING DOCUMENTS.....	4
3. TENDER TECHNICAL EVALAUTION STRATEGY	4
3.1 SCOPE OF WORK.....	4
3.2 TECHNICAL EVALUATION THRESHOLD	8
3.3 TET MEMBERS.....	8
3.4 MANADATORY TECHNICAL EVALUATION CRITERIA.....	10
3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA.....	11
3.6 TET MEMBER RESPONSIBILITIES.....	13
3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS.....	14
3.7.1 Risks.....	14
3.7.2 Exceptions / Conditions.....	14
4. AUTHORISATION.....	15
5. REVISIONS	15
6. DEVELOPMENT TEAM	15
7. ACKNOWLEDGEMENTS	15

TABLES

Table 1: TET Members.....	8
Table 2: Removing and Installing Power and Control Cables- Qualitative Technical Evaluation Criteria	11
Table 3: TET Member Responsibilities.....	13
Table 4: Acceptable Technical Risks.....	14
Table 5: Unacceptable Technical Risks	14
Table 6: Acceptable Technical Exceptions / Conditions.....	14
Table 7: Unacceptable Technical Exceptions / Conditions	14

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1. SUPPORTING CLAUSE-S

1.1 SCOPE

The document covers the technical evaluation strategy for the evaluation of tenders for Power Line Carriers (PLC) Refurbishment (Acornhoek,Marathon,Leseding,Merensky,Foskor,Pelly,Senakangwedi,Spencer,Simplon and Witkop and Warmbad substations)

The aim of this document is to provide a technical evaluation strategy that shall be used for the technical evaluation of tenders for the installation of control and power cables at Acornhoek,Marathon,Leseding,Pelly,Senakangwedi,Spencer,Simplon,Warmbad and Witkop substations Furthermore, it will ensure transparency in the evaluation process as per the requirements set out in the Tender Evaluation Procedure (240-48929482) [1].

2. INTRODUCTION

This document establishes the technical evaluation strategy for the evaluation of tenders that will be received in response to the request to tenders for the work to be done substations mentioned in 1.1. This strategy is of a high-level consideration and of the key aspects that will give direction to the technical evaluation process. It is in accordance with Tender Engineering Evaluation Procedure (240-48929489) [1].

This document covers the work required for the installation of control and power cables at substations mentioned in 1.1.

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 shall apply to the installation of control and power cables for the Power Line Carriers (PLC) Refurbishment at Acornhoek,Marathon.Leseding,Merensky,Foskor,Pelly,Senakangwedi,Spencer,Simplon,Warmbad and Witkop substations in the Northern Grid.

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
- [2] 32-1034: Eskom Procurement and Supply Management
- [3] SANS-10198: The Selection, Handling and Installation of Power Cables not exceeding 33kV
- [4] OHS Act, 1993: Electrical Installations Regulations 2009
- [5] OSH Act, 1993: Construction Regulations, 2014
- [6] Occupational Health and Safety Act (No.85 of 1993)
- [7] ESKPVAEY6: 2005 Operating Regulations for High Voltage Systems.

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Power Line Carrier (PLC) Refurbishment – North Grid

Tender Technical Evaluation Strategy for Installing Control and Power Cables

Unique Identifier: **NG_PLC_Ph1-P-D86**

Revision: **1**

Page: **4 of 15**

2.2.2 Informative

- [8] PTM & C Cable Schedule- 240-84597622
- [9] LV Power and Control Cable with Rated Voltage Standard 600/1000V -240-56063805
- [10] SANS 10142 - The Wiring of Premises Part 1 Low Voltage Installations.
- [11] 240-56030637-General Information and Requirements for Low Voltage Cable System Standard
- [12] 240-64636794 Standard for wiring and Cable Marking in Substations

2.2.3 Classification

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

2.3 ABBREVIATIONS

Abbreviation	Description
CV	Curriculum Vitae
CS	Convertor Station
EDWL	Engineering Design Work Lead
LV	Low Voltage
PTM & C	Protection, Teleprotection, Metering and Control
SANS	South African Nation Standard

2.4 ROLES AND RESPONSIBILITIES

N/A

2.5 PROCESS FOR MONITORING

N/A

2.6 RELATED/SUPPORTING DOCUMENTS

N/A

3. TENDER TECHNICAL EVALAUTION STRATEGY

3.1 SCOPE OF WORK

The scope of work for this project will comprise the following activities

Acornhoek Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
- Marathon No.1(Feeder 2), Marathon No.2 (Feeder 3),Foskor No.3(Feeder 2)
- Install new NSD570 teleprotection units for the following feeder bays

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Power Line Carrier (PLC) Refurbishment – North Grid

Tender Technical Evaluation Strategy for Installing Control and Power Cables

Unique Identifier: **NG_PLC_Ph1-P-D86**

Revision: **1**

Page: **5 of 15**

○ Marathon (Feeder 2) and Marathon No.2 (Feeder 3)

- Install 6 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Foskor Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Acornhoek No.3 (Feeder 2), Merensky No.1 (Feeder 3)
- Install new NSD570 teleprotection units for the following feeder bays
 - Merensky No.1 (Feeder 3)
- Install 4 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board panels and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Leseding Substation

400kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Witkop No.1(Feeder 1), Merensky No.1 (Feeder 2)
- Install new NSD570 teleprotection units for the following feeder bays
 - Witkop No.1 (Feeder 1) and Merensky No.1(Feeder 2)
- Install 4 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and Dip5000 teleprotection units once the new equipment has been fully commissioned.

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Marathon Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Acornhoek No.1 (Feeder 1), and Acornhoek No.2 (Feeder 3)
- Install new NSD570 teleprotection units for the following feeder bays
 - Acornhoek No.1 (Feeder 1) and Acornhoek No.2 (Feeder 3)
- Install 4 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Merensky Substation

400kV and 275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Senakangwedi No.1 (Feeder 1), Leseding No.1 (Feeder 3) and Foskor No.1 (Feeder 2)
- Install new NSD570 teleprotection units for the following feeder bays and
 - Leseding No.2 (Feeder 3) and Foskor No.1 (Feeder 2)
- Install 6 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Pelly Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Warmbad No.1 (Feeder 4)
- Install 2 x new LME with new coax cables
- Install new NSD570 teleprotection units for the following feeder bay
 - Warmbad No.1 (Feeder 4)
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided

CONTROLLED DISCLOSURE

-
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Senakangwedi Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Simplon No.1 (Feeder 2) and Merensky No.1(Feeder 1)
- Install 4 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Spencer Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Witkop No.1(Feeder 3)
- Install 2 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's teleprotection units once the new equipment has been fully commissioned.

Simplon Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection scheme on the allocated space as per approved control room layout
 - Senakangwedi No.1 (Feeder 1)
- Install 2 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's teleprotection units once the new equipment has been fully commissioned.

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Warmbad Substation

275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
 - Pelly No.2 (Feeder 2), and Witkop No.1 (Feeder 1)
- Install new NSD570 teleprotection units for the following feeder bays
 - Pelly No.1 (Feeder 2) and Witkop No.1 (Feeder 2)Install 2 x LME'S with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

Witkop Substation

400kV and 275kV Feeder Bays

- Install new PLC cabinet for the following feeder protection schemes on the allocated space as per approved control room layout
- Leseding No.1 (Feeder 2), Spencer No.1 (Feeder 6), and Warmbad No.1(Feeder 2)
- Install new NSD570 teleprotection units for the following feeder bays
 - Leseding No.1 (Feeder 2) and Warmbad No.1 (Feeder 2)
- Install 6 x new LME with new coax cables
- Install new cables as per the approved cable blocks diagrams provided for all the new teleprotection equipment installed
- Install new cables between the AC Board panel, DC board and new teleprotection equipment panels and all interfacing panels as per the approved latest cable block drawing provided
- Decommission, remove the old PLC's and NSD70 teleprotection units once the new equipment has been fully commissioned.

3.2 TECHNICAL EVALUATION THRESHOLD

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

3.3 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
-------------------	------------------------	--------------------

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Power Line Carrier (PLC) Refurbishment – North Grid

**Tender Technical Evaluation Strategy for Installing
Control and Power Cables**

Unique Identifier: **NG_PLC_Ph1-P-D86**

Revision: **1**

Page: **9 of 15**

TET 1	Harold Dlungwana	Senior Technologist
TET 2		
TET 3		

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Power Line Carrier (PLC) Refurbishment – North Grid

**Tender Technical Evaluation Strategy for Installing
Control and Power Cables**

Unique Identifier: **NG_PLC_Ph1-P-D86**
Revision: **1**
Page: **10 of 15**

3.4 MANADATORY TECHNICAL EVALUATION CRITERIA

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Relevant company experience	SANS10198 & 240-56030637	Vital to execute the task
2.	Procedures for Cable Terminations	SANS10198 & 240-64636794	Vital to execute the task
3.	Procedure for Cable Installation	SANS10198 & 240-56030637	Vital to execute the task
4.	Procedure for Loading and Unloading Cable Drums	SANS10198 & 240-56030637	Vital to execute the task
5.	Procedures for Cable Handling and Storing	SANS 10198 & 240-56030637	Vital to execute the task
6.	Tools and equipment	SANS10198 & 240-56030637	Vital to execute the task

Power Line Carrier (PLC) Refurbishment – North Grid

Tender Technical Evaluation Strategy for Installing Unique Identifier: NG_PLC_Ph1-P-D86
Control and Power Cables

Revision: **1**
 Page: **11 of 15**

3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 2: Removing and Installing Power and Control Cables- Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	Relevant company experience (Projects completed in past 10 years)		SANS10198 & 240-56030637	20	
	1.1	Number of projects	SANS10198 & 240-56030637		4
	1.2	Project Scopes and values	SANS10198 & 240-56030637		4
	1.3	C.V of qualified personnel	SANS10198 & 240-56030637		4
	1.4	Substation names and completion dates	SANS10198 & 240-56030637		4
	1.5	Client contact person and details	SANS10198 & 240-56030637		4
2.	Procedures for Cable Terminations		SANS10198 & 240-56030637	20	
	2.1	Handling of spare cores	SANS10198 & 240-56030637		8
	2.2	Ferrule numbering	SANS10198 & 240-56030637		8
	2.3	Total number of manpower dedicated to this project	SANS10198 & 240-56030637		4
3.	Procedure for Cable Installation		SANS10198 & 240-56030637	20	
	3.1	Yard stone handling	SANS10198 & 240-56030637		5
	3.2	Trench cover handling	SANS10198 & 240-56030637		5
	3.3	Cable Glanding	SANS10198 & 240-56030637		5
	3.4	Cable numbering	SANS10198 & 240-56030637		5
4.	Procedure for Loading and Unloading Cable Drums		SANS10198 & 240-56030637	15	

Power Line Carrier (PLC) Refurbishment – North Grid

Tender Technical Evaluation Strategy for Installing Control and Power Cables

Unique Identifier: **NG_PLC_Ph1-P-D86**
 Revision: **1**
 Page: **12 of 15**

	4.1	Adequacy of procedure	SANS10198 & 240-56030637		15
5.		Procedures for Cable Handling and Storing	SANS10198 & 240-56030637	15	
	5.1	Adequacy of procedure	SANS10198 & 240-56030637		15
6.		Tools and equipment	SANS10198 & 240-56030637 9	10	
	6.1	Adequacy of tools and equipment. Test Certificate of crimping tools	SANS10198 & 240-56030637		10
				TOTAL: 100	

Power Line Carrier (PLC) Refurbishment – North Grid

Tender Technical Evaluation Strategy for Installing Control and Power Cables

Unique Identifier: **NG_PLC_Ph1-P-D86**
 Revision: **1**
 Page: **13 of 15**

3.6 TET MEMBER RESPONSIBILITIES

Table 3: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
Relevant company experience	X	X	X
Procedures for Cable Terminations	X	X	X
Procedure for Cable Installation	X	X	X
Procedure for Loading and Unloading Cable Drums	X	X	X
Procedures for Cable Handling and Storing	X	X	X
Tools and Equipment			
Qualitative Criteria Number	TET 1	TET 2	TET 3
Relevant company experience	X	X	X
Procedures for Cable Terminations	X	X	X
Procedure for Cable Installation	X	X	X
Procedure for Loading and Unloading Cable Drums	X	X	X
Procedures for Cable Handling and Storing	X	X	X
Tools and equipment	X	X	X

3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.7.1 Risks

Table 4: Acceptable Technical Risks

Risk	Description
1.	None

Table 5: Unacceptable Technical Risks

Risk	Description
1.	Contractor who do not have the relevant experience

3.7.2 Exceptions / Conditions

Table 6: Acceptable Technical Exceptions / Conditions



Risk	Description
1.	None

Table 7: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	None

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Harold Dlungwana	PTM &C Technology and Support Senior Technologist	
Christinah Mohloki	PTM&C Technology and Support Chief Technologist	

5. REVISIONS

Date	Rev.	Compiler	Remarks
09 March 2026	1	Harold Dlungwana	First Issue

6. DEVELOPMENT TEAM

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

- Harold Dlungwana (PTM&C Senior Technologist)

7. ACKNOWLEDGEMENTS

- Christinah Mohloki (PTM & C Chief Technologist)

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