

Scope of Work

**National Transmission
Company South Africa**

Title: **ACACIA WINDERMERE 1 & 2
33KV CABLE SYSTEMS
PROJECT SCOPE AND
TECHNICAL EVALUATION
CRITERIA**

Document Identifier: **240-185000385**

Alternative Reference Number: **N/A**

Area of Applicability: **National Transmission
Company South Africa**

Functional Area: **Engineering**

Revision: **2**

Total Pages: **19**

Next Review Date: **N/A**

Disclosure Classification: **Controlled Disclosure**

Compiled by



Fernando Witbooi

**Chief Technologist: Asset
Management: SE &D**

Date: 25/11/2025

Approved by



Queeneth Khumalo

**Chief Engineer: Asset
Management: SE &D**

Date: 25/11/2025

Authorized by



Bheki Ntshangase

**Senior Manager: Asset
Management: SE &D**

Date: 25/11/2025

Content

	Page
1 Introduction.....	4
2 Supporting clauses	5
2.1 Scope.....	5
2.1.1 Purpose.....	5
2.1.2 Applicability	5
2.2 Normative/informative references.....	6
2.2.1 Normative.....	6
2.2.2 Informative.....	6
2.3 Definitions	6
2.3.1 General	6
2.3.2 Disclosure classification.....	6
2.4 Abbreviations	6
2.5 Roles and responsibilities	7
2.6 Process for monitoring.....	7
2.7 Related/supporting documents	7
3 Scope of Project	7
3.1 HV Cable installation works	7
3.2 Activities excluded from scope of works	8
4 The 44kV Cable systems design requirements	8
4.1 The 44 kV cable system requirements for Transfomer 5/Windermere 1 and Transfomer 6/Windermere 2 44 kV feeder cable systems project.....	9
4.2 The cable system route reference description	10
4.3 The cable system after installation testing	10
4.4 Risks identified for the 44kV cable system project.....	11
5 Tender Requirements	11
6 Requirements after Contract award	12
7 Conclusion.....	12
7 Authorization	13
8 Revisions.....	13
9 Development team	13
10 Acknowledgements	13
Appendix A – Schedules A and B for the Windermere 1 and Windermere 2 44kV cable systems	14
Appendix B– Technical evaluation criteria for the Windermere 1 and Windermere 2 44kV cable systems projects.....	17
Appendix C– Technical evaluation criteria for the Windermere 1 and Windermere 2 44kV cable systems project.....	18

CONTROLLED DISCLOSURE

Figures

Figure 1: Profile and Plan view of Transformer bay 4

Figure 2: Profile and Plan view of Customer Supply end..... 5

Tables

Table .1: Mandatory technical evaluation criteria 18

Table .2: Scoring technical evaluation criteria..... 18

CONTROLLED DISCLOSURE

1 Introduction

This document contains the scope, design and minimum technical requirements and evaluation criteria for the installation of the new Acacia Windermere 1 and Windermere 2 33kV feeders at Acacia substation. The existing 33kV busbar will be decommissioned and newly installed 10MVA, 66/33kV Transformers 5 and 6 will be line banked. The XLPE-insulated cable systems will be fed off the secondaries of the new Transformer 5 and Transformer 6 respectively and rated at 10MVA. The cable route lengths are approximately 50 meters per circuit. The proposed cable solution and installation will be executed using 44kV single core XLPE cables as per NTCSA standard. On the customer supply end, the new 44kV terminations shall be connected to the existing customer 33kV terminations.

The profile and plan views of the new transformer bay is illustrated in Figure 1 and the customer supply end is illustrated in Figure 2 respectively.

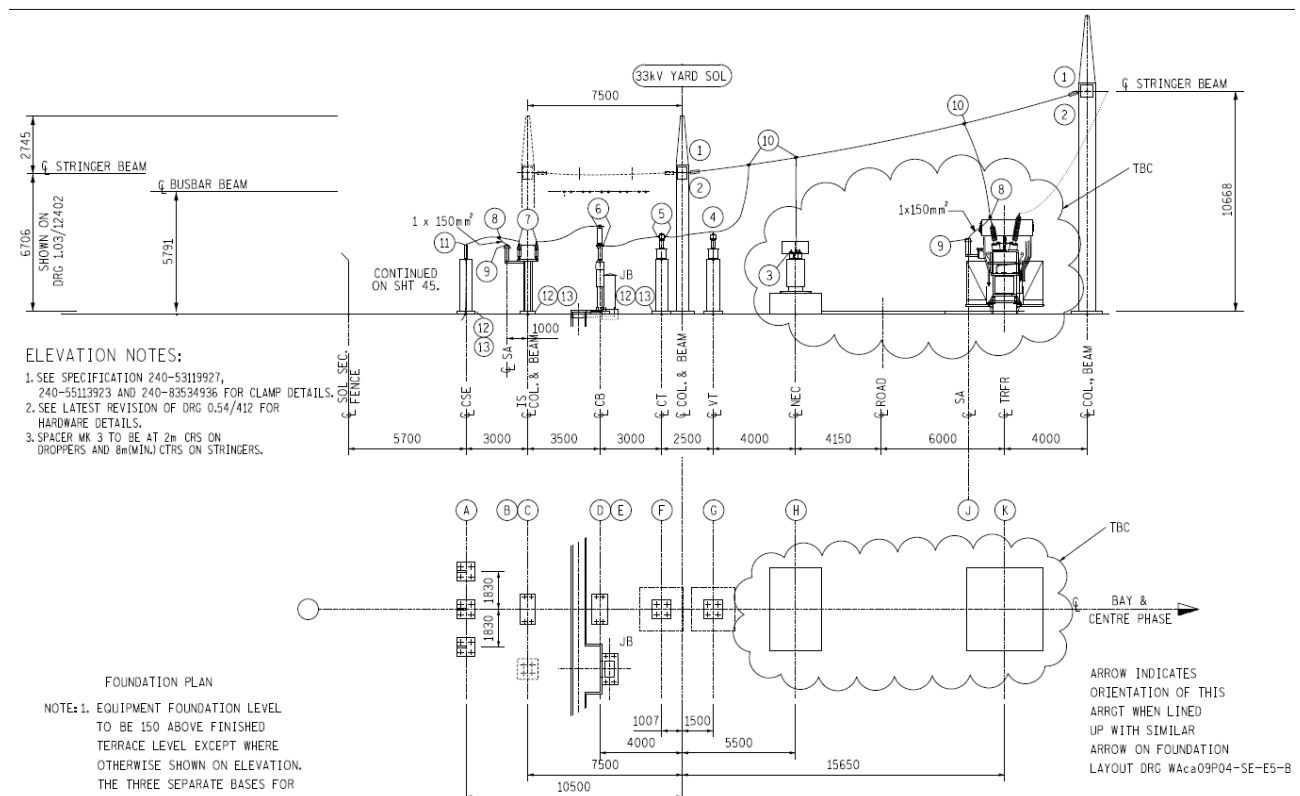


Figure 1: Profile and Plan view of Transformer bay

CONTROLLED DISCLOSURE

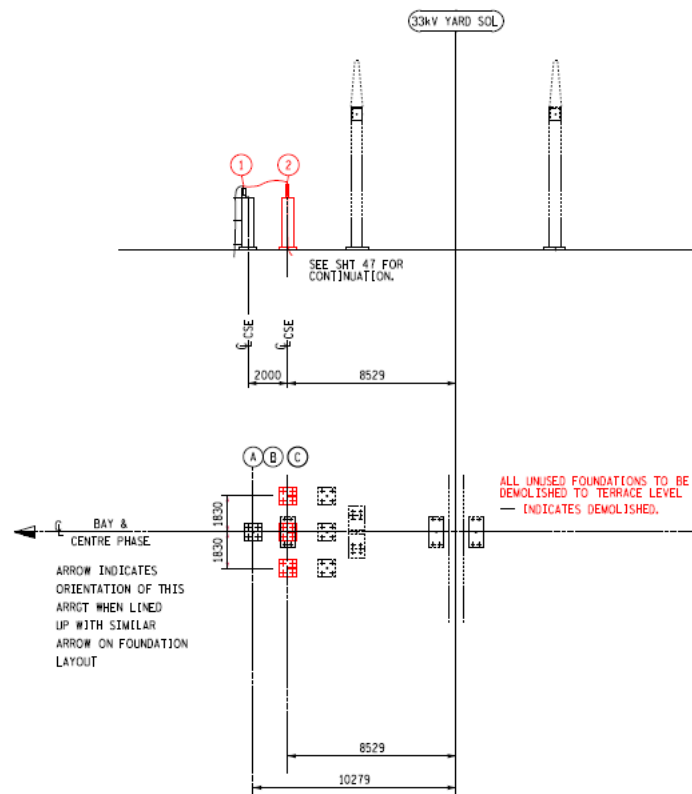


Figure 2: Profile and Plan view of Customer Supply end

2 Supporting clauses

2.1 Scope

This specification contains the scope for the installation and minimum technical requirements for the new 44kV XLPE cable systems, connecting the secondaries of Transformer 5 and Transformer 6 to the Windermere 1(Feeder 8) and Windermere 2(Feeder 7) customer supply ends respectively, at Acacia substation.

2.1.1 Purpose

This document specifies the requirements for the design, routine testing, supply of XLPE cable and accessories, transportation to site, trenching, installation, after installation testing and commissioning, of the Windermere 1 and Windermere 2 44kV cable systems to be installed at Acacia substation.

2.1.2 Applicability

This document shall apply only to the new Windermere 1 and Windermere 2 44kV XLPE cable system projects at Acacia substation.

CONTROLLED DISCLOSURE

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

SANS/IEC 60840: Power cables with extruded insulation and their accessories for rated voltages above 30 kV (Um = 36 kV) up to 150 kV (Um = 170 kV) — Test methods and requirements.

IEC 61914 Cable cleats for electrical installations

Drawing Reference: WAc09P04-SE-E13-B Sheet 44, Acacia 33kV Feeder 7

Drawing Reference: WAc09P04-SE-E13-B Sheet 45, Acacia 33kV Feeder 8

Drawing Reference: WAc09P04-SE-E13-B Sheet 46, Acacia 33kV Transformer 5/Feeder 8

Drawing Reference: WAc09P04-SE-E13-B Sheet 47, Acacia 33kV Transformer 6/Feeder 7

Drawing Reference: D-DT-5271 sheet1 HV cable termination end support foundation

Drawing Reference: D-DT-5271 sheet2 HV cable termination end support structure details

2.2.2 Informative

240-56030640: General Information and requirements for high-voltage cable systems.

240-56030625: Specification for XLPE-insulated power cables and accessories for systems with nominal voltages of 44kV to 132 kV.

2.3 Definitions

2.3.1 General

Definition	Description
Cable system	Cable with installed accessories (i.e. joints if applicable, terminations, earthing and bonding system)

2.3.2 Disclosure classification

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

2.4 Abbreviations

Abbreviation	Description
Al	Aluminium
CSA	Corrugated Seamless Aluminium
Cu	Copper

CONTROLLED DISCLOSURE

Abbreviation	Description
ECC	Earth Continuity Conductor
HV	High voltage
OEM	Original equipment manufacturer
PD	Partial discharge
PU	Per unit
QIP	Quality Inspection Plan
QITP	Quality Inspection Test Plan
SVL	Sheath Voltage Limiter
VLF	Very Low Frequency
XLPE	Cross Linked Polyethylene

2.5 Roles and responsibilities

All Eskom employees and/or appointed bodies involved in the procurement of the 44kV XLPE cable systems shall ensure that the project deliverable meets the requirements of this specification.

All suppliers and contractors of the 44kV XLPE cable systems to Eskom must be conversant with the requirements of this standard, and shall comply with the requirements. Suppliers shall ensure that they obtain clarity where required and obtain all supporting information or documents necessary to comply with the scope.

2.6 Process for monitoring

The 44kV XLPE cable systems project acceptances shall be based on full compliance to this scope.

2.7 Related/supporting documents

Refer to clause/ section 2.2.

3 Scope of Project

3.1 HV Cable installation works

The scope for the project entails the following.

- 1) Manufacturing, testing and supply of 44kV XLPE cable
- 2) Manufacturing, testing and supply of 44kV cable sealing ends (terminations)
- 3) Final site and route surveying for new 44kV XLPE cable.
- 4) Final design, design review and engineering phase for all key components after contract award.
- 5) Supply of Routine test reports for cable and cable accessories

CONTROLLED DISCLOSURE

- 6) Site preparation and site establishment.
- 7) Cable route excavation and shoring along trench with onsite quality assurance.
- 8) Cable installation inclusive of setting out of rollers, cable pulling, backfilling and compaction with onsite quality assurance.
- 9) Cable termination with onsite quality assurance.
- 10) Sheath bonding arrangement and installation inclusive of bonding leads, link and SVL disconnecting boxes installation, onsite quality assurance.
- 11) Installation of ECC with onsite quality assurance.
- 12) Importing, backfilling, compaction and testing of bedding and blanket soil with onsite quality assurance. Test certification verifying the thermal resistivity of the imported backfill soil must be provided.
- 13) After installation and commissioning testing on the installed cable with onsite quality assurance. VLF with PD testing as a minimum is required.
- 14) De-establishment and handover.

3.2 Activities excluded from scope of works

The following activities are specifically excluded from the scope of works based on request from Project Management. These activities include primarily civil works and structure erections. It is envisioned that Project Management will issue a separate contract to a third party for this works.

- 1) Removal of line isolator equipment and structure on Feeders 7 & 8.
- 2) Excavation and removal of line isolator foundations
- 3) Excavation of 6 new holes for cable sealing end support structure foundations at Transformer 5 and 6 end.
- 4) Excavation of 6 new holes for cable sealing end support structure foundation at Windermere 1 and 2 customer end.
- 5) Casting of 6 x new Cable Sealing End foundations and earthing(D-DT-5271 sht1) on new Transformer 5 and Transformer 6 feeder bays.
- 6) Supply and install 12 x new Cable Sealing End steel supports structures(D-DT-5271 sht2) and earth as (D-DT-5271 sht1).
- 7) Supply of hardware (clamps) and execution of all stringing activity related to removal of jumpers from the existing bay equipment and making new connections onto the newly installed outdoor cable terminations.

4 The 44kV Cable systems design requirements

The cable system design, manufacturing, routine testing, supply of accessories, trenching, installation, after installation testing and commissioning, shall be performed in accordance with the latest revision of the following documents and requirements:

CONTROLLED DISCLOSURE

- a) 240-56030640: General Information and requirements for ac high-voltage, ac extra high-voltage and dc cable system,
- b) 240-56030625: Specification for XLPE-insulated power cables and accessories for systems with nominal voltages of 44kV to 132 kV,
- c) SANS 60840: Power cables with extruded insulation and their accessories for rated voltages above 30 kV ($U_m = 36$ kV) up to 150 kV ($U_m = 170$ kV) — Test methods and requirements.
- d) The cable, joints and terminations offered shall have been type tested as a cable system in accordance with SANS 60840 (clause 12).
- e) All cleats or clamping systems used shall conform to IEC 61914, Cable cleats for electrical installations.
- f) Where a single cable system solution is proposed for both feeders, it will be inferred that the single cable system solution will apply to both feeders and therefor only one set of design calculations, technical schedules and supporting drawings and documents need to be submitted.
- g) Where any conflicting information is stated, this document will take precedence.
- h) The Tenderer/Contractor is required to sufficiently optimise the cable systems design, routine testing and supply of accessories, trenching, installation, after installation testing and commissioning, for the prevailing conditions and constraints that may arise from on-site conditions or specified in this document.
- i) All cable and accessories details, raw material information, datasheets, drawings, routing and configurations, trench designs, cleating or clamp designs, applicable calculations with assumptions and results, test plans, quality inspection test plans and any other requirements contained in this specification shall be included in the supplier's final cable systems design package.

4.1 The 44 kV cable system requirements for Transformer 5/Windermere 1 and Transformer 6/Windermere 2 44 kV feeder cable systems project

The Tenderer shall confirm the cable ampacity for the supplied cable as stated below for each individual circuit to meet the load requirements as specified and under the specified installation conditions.

The XLPE rated 44kV cable with, 300 mm² aluminium conductor size and installation design to meet the current rating requirement for a flat formation, minimum 2*diameter spacing, laid at 1m depth and single-end bonded sheath system.

The cable system shall meet the specified maximum continuous current rating at a daily load factor of 1 (100%) for the maximum continuous current temperature limit of 70°C. The maximum continuous current load rating requirements shall be as follows:

- Transformer 5/Windermere 1 - 10MVA (175A)
 - Transformer 6/Windermere 2 - 10MVA (175A)
- a) The cable system ampacity calculation, shall be based on the following;
- Continuous loading calculation for conductor temperature at 70°C for depth of burial at 1m, minimum axial spacing of 2*diameter, with ambient temperature at 35°C and soil temperature at 25°C.

CONTROLLED DISCLOSURE

- Short Circuit calculations, commencing at 70°C conductor temperature to 250°C.
- The proximity of the two cable circuits.

Furthermore, the 90°C current rating, 105°C current rating, four hour overloading current rating, and two hour overloading current rating, for the same installation conditions shall be stated in Schedule B.

- b) The maximum three phase fault level requirement is 40kA for 1 second and the maximum single phase to earth fault level requirement is 40kA for 1 second.
- c) Calculation of the ampacity (rating) shall show all the rating factors that were considered. The applicable ambient temperature ranges are stated in Technical Schedule A in appendix A.
- d) The route length per single core cable is approximately 50 meters. Total length per circuit required is therefor 150m.
- e) Single-end sheath bonding methods shall be used.
- f) An insulated Earth Continuity Conductor (ECC), adequately rated for the expected earth faults and optimally placed shall be installed and similarly shall be used for the bonding leads. Where required the ECC shall be transposed to limit circulating currents and losses in the ECC.
- g) The Tenderer shall be responsible for surveying the final cable route in accordance with the preliminary routing information provided.
- h) The cable length shall make provision for all bends, slack, deviations and snaking of the cable along its route, as well as passage of the cable through the termination support structures and at the termination ends.
- i) The cable system design shall make provision for all trenching, backfilling and compaction, laying configuration and cleats and clamps.
- j) All preliminary drawings, appropriately referenced, for all terminations and accessories shall be provided with the Tender and final drawings after contract award.

4.2 The cable system route reference description

The 44 kV cable systems will be required to be installed as per the provided cable route drawing. The route length for the commercial tender enquiry and technical evaluation purpose will be approximately 50 m long per cable system. After awarding of the tender it is required that the exact route and trench length be measured on-site and the cable trench length, order length, installation length and bill of quantity costs be adjusted to this measured and agreed length during the design and engineering phase.

4.3 The cable system after installation testing

The Contractor shall propose and conduct the following after installation tests at U/U₀ reference of 44/26 kV. These proposals, inclusive of method statements with pass/fail criteria shall be provided with the tender.

- a) DC voltage test of the oversheath.

CONTROLLED DISCLOSURE

- b) Overvoltage test (at 44/26 kV) with one of the following options
 - a. Near power frequency voltage test at 2 per unit(pu) for 1 hour
 - b. VLF Sinusoidal voltage test with at 3 pu for 1 hour
 - c. VLF Cosine voltage test at 4 pu for 1 hour
- c) Partial discharge (PD) measurement. PD test methods, detection systems as well as pass/fail criteria to be provided.
- d) Alternative AC voltage test with PD test may be proposed. AC voltage method, PD test methods, detection systems as well as pass/fail criteria to be provided.

Eskom reserves the right to supplant any proposal with an alternative testing method.

All test and measurement data and results performed during and after installation shall be provided to Eskom in a final report.

4.4 Risks identified for the 44kV cable system project

- Work will be carried out in proximity to live installations. There is thus an increased risk of induced voltage or currents on the cable circuit being installed due to this live apparatus in close proximity. This risk may be accentuated when the cable termination works, which is at elevation, are done. Additional earthing and/or electric field screening precautions may therefore be required during installation and testing of the cable.
- The substation has a relatively low water table, resulting in excavated trenches quickly becoming waterlogged. The Tenderer will have to make sufficient provision for pumping of excess water from the trenches.

5 Tender Requirements

The following shall be submitted by the supplier at tender stage. All information shall be in English and properly legible, if not, it could render the tender non-responsive. Furthermore, all information provided must pertain to the items within the tenderer's offer.

- 1) Completed Technical Schedules
- 2) Preliminary Project plan(schedule) indicating time frame and sequence for all on-site project activities.
- 3) Type Test report for supplied cable and terminations, tested as a system and inclusive of water penetration test.
- 4) Outline drawings with dimensions for cable, terminations(sealing ends), cleats/clamps, link and SVL disconnecting boxes. Cleats or clamps shall comply to IEC 61914, "Cable cleats for electrical installations".
- 5) The project reference list of a minimum of 5 HV(44kV and above) cable systems installed over the last 5 years. Project name, voltage level, as well as client name, email and telephone contact details to be provided.
- 6) A signed confirmation letter from the delegated representative of the type tested termination supplier(s), confirming supply of type tested terminations for this project to the tenderer. Only terminations which have been type tested with the supplied cable in accordance with SANS/IEC 60840 shall be offered and accepted.

CONTROLLED DISCLOSURE

- 7) Experience and qualifications of technical specialists and/or designers responsible for cable system design and technical support shall be provided. A one page CV for each specialist will be sufficient. A minimum of one Engineering Technician, Technologist or Engineer is required with a minimum of 5 years related experience.
- 8) Experience and jointing competency certification(s) of jointers and installation teams demonstrating relevant HV cable installation experience shall be provided. A one page CV for each team member will be sufficient. A minimum of two team members consisting of one jointer/installation supervisor and one jointer, each with a minimum of 5 years related experience is required.
- 9) Proposal for after installation tests as outlined in 4.3

6 Requirements after Contract award

The Supplier shall avail method statements and documents after contract award and when required pertaining to;

- a) Final Project Plan (schedule) indicating sequence and time frames of all related activities.
- b) Final site and route surveying.
- c) Final cable installation design and configuration drawings or schematics.
- d) Cable ampacity, short circuit, sheath standing and transient voltage calculations.
- e) Cable datasheets and outline drawings.
- f) Routine test reports for XLPE cable, terminations, ECC and accessories.
- g) Site Preparation and/or Establishment.
- h) Cable trench design and onsite quality inspection plans.
- i) Cable installation method statement and onsite quality inspection plans.
- j) Method statements and quality inspection test plans for ECC, sheath bonding arrangement, link and SVL disconnecting boxes.
- k) Outdoor cable sealing ends(terminations) installation method statement and onsite quality inspection plans.
- l) After installation testing and commissioning testing method statements and onsite quality inspection plans.
- m) Test certificate/compliance certificate for thermal resistivity of imported soil.
- n) Compliance certificate(s) of cleats and/or clamps in accordance with IEC 61914, Cable cleats for electrical installations.
- o) Operation, installation and maintenance manuals for the installed cable terminations and accessories.

7 Conclusion

This report specifies a cable system requirement for the Windermere 1 and Windermere 2 33kV feeders at Acacia substation. The Supplier must complete the Technical Schedule B in Appendix A as part of the tender returnable.

CONTROLLED DISCLOSURE

The technical evaluation criteria for this project are specified in Appendices B, and C.

7 Authorization

This document has been seen and accepted by:

Name and surname	Designation
Bheki Ntshangase	Senior Manager – Asset Management: SE & D
Queeneth Khumalo	Chief Engineer – Asset Management: SE & D
Shivern Singh	Chief Engineer – Substation Engineering: Electrical
Mark Pepper	Chief Engineer – Substation Engineering

8 Revisions

Date	Rev	Compiler	Remarks
November 2024	2	F Witbooi	Removal of foundations civil, structure erection and stringing works. Changes to Technical schedules and Evaluation criteria.
March 2024	1	F Witbooi	New document

9 Development team

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

- Fernando Witbooi Chief Technologist: Asset Management: SE &D

10 Acknowledgements

The Substation Engineering team for valued input.

CONTROLLED DISCLOSURE

Appendix A – Schedules A and B for the Windermere 1 and Windermere 2 44kV cable systems

Schedule A: Purchaser's specific requirements

Schedule B: Guarantees and particulars of equipment to be supplied (to be completed by tenderer)

Item Nr	Description	Units	Schedule A	Schedule B
1	a) altitude	m	Up to 1800	xxxxxxxx
2	b) ambient air temperature	°C	–5 °C to 50 °C (average of 35 °C)	xxxxxxxx
3	c) soil temperature	°C	0 °C to 35 °C (average of 25 °C)	xxxxxxxx
4	d) soil thermal resistivity (maximum at soil dry out)	K·m/W	1,2	xxxxxxxx
5	e) depth of burial	m	1	xxxxxxxx
6	f) configuration		Flat (minimum 2*diameter spacing)	
7	g) special bonding applied		Single	xxxxxxxx
8	h) lightning ground flash density		severe (14 flashes/km ² /year	xxxxxxxx
9	i) solar radiation	W/m ²	1 000 to 1 250	xxxxxxxx
10	j) ultraviolet radiation		High	xxxxxxxx
11	k) relative humidity		10 % to 95 %;	xxxxxxxx
12	m) wind pressure and seismic		Not exceeding 700 Pa (equivalent to 34 m/s) and 0.3g	xxxxxxxx
13	n) pollution severity defined by IEC 60815: "Very heavy"		Very heavy (31 mm/KV required as a minimum)	xxxxxxxx
14				
15	o) maximum conductor operating temperature	°C	70°C (@ 10 MVA)	xxxxxxxx
16	Cable or accessory operating voltage (or both) (U)	kV	44	xxxxxxxx
17	Rated voltage of accessories	kV	44	xxxxxxxx
18	Type of conductor required		Aluminium	xxxxxxxx
19	Conductor cross-sectional area	mm ²	300	xxxxxxxx
20	a. minimum Load current (@ 70°C), 100 % load factor	A	175A (10 MVA)	
	b. 90°C	A	xxxxxxxx	
	c. 105°C	A	xxxxxxxx	
	d. 110% overload for 4 hours	A	xxxxxxxx	
	e. 120% overload for 2 hours	A	xxxxxxxx	

CONTROLLED DISCLOSURE

Item Nr	Description	Units	Schedule A	Schedule B
21	Minimum Symmetrical short-circuit fault level at 1s	kA	40	xxxxxxxx
22	Required length of ECC/bonding lead	m	100	
23	Bonding lead lug fixing hole if not M12		M12	
24	Type of ECC/bonding lead (single core/concentric)		Single core	
25	Diameter of bonding lead	mm	Provide	
26	ECC/Bonding lead conductor material	Al/Cu	Provide	
27	ECC/Bonding lead cross-sectional area	mm ²	Provide	
28	Number of terminations		12	xxxxxxxx
29	Details of cable termination support structure		DDT5271& DDT5272	xxxxxxxx
30	Termination housing insulation material type		Silicone Composite	
31	Minimum Specific Creepage	mm/kV	31	
32	Measured creepage distance	mm	xxxxxxxx	
33	Diameter of vertical stem for self-supporting type terminations (typically 38mm)	mm	38mm	
34	10.1.1.1.1.1.1 Sheath bonding arrangement required		Single-end	
	10.1.1.1.1.1.2 SVL TOV rating	kV	Provide	
35	Number of link disconnecting boxes required for			
	a) three-way (i.e. 3 line and 1 earth) link disconnecting box		2	
	b) three-way SVL disconnecting box		2	
36	Type of link disconnecting boxes		Kiosk or structure mounted	
37	Material of link and SVL boxes		Stainless steel	
38	Maximum permissible pulling tension	kN	xxxxxxxx	
39	Drum Height/Width	m	xxxxxxxx	
40	Gross Mass	kg	xxxxxxxx	
41	Minimum Bending Radius	mm	xxxxxxxx	
42	Cable parameters:			
	a) nominal overall diameter of cable	mm	xxxxxxxx	
	b) mass of cable	kg/m	xxxxxxxx	
	c) d.c. resistance of conductor at 20 °C	Ω/ km	xxxxxxxx	
	d) a.c. resistance of conductor at 70 °C	Ω/ km	xxxxxxxx	
	e) capacitance	nF/km	xxxxxxxx	

CONTROLLED DISCLOSURE

Item Nr	Description	Units	Schedule A	Schedule B
	f) positive sequence impedance per phase	Ω / km	xxxxxxx	

CONTROLLED DISCLOSURE

Appendix B– Technical evaluation criteria for the Windermere 1 and Windermere 2 44kV cable systems projects

1) Scope

This document covers the criteria for the technical evaluation of the Windermere 1 and Windermere 2 44kV cable systems replacement project, to be used when evaluating the tender submissions for this project.

2) Requirements

The technical evaluation criteria are specific for each part of the 44 kV cable system design, routine testing, accessory supply, trenching, installation, after installation testing and commissioning. The evaluation methodology entails the technical evaluation of the tender returnable documentation submitted.

2.1 Tender Evaluation process

The technical tender evaluation process constitutes the technical evaluation of the relevant tender submissions as submitted by the tenderers for this project. The submitted documents will be evaluated against the evaluation criteria as stated in Appendix C, Table 1 and 2.

The documentation evaluation consists of two levels. The first level is the mandatory or gatekeeper criteria which consists of confirming key functional requirements as contained in Table 1. If all functional requirements are met, the mandatory requirements are complied with. In this instance full points are awarded with a weighting of 80% towards the final score. If there is a failure to meet any one of the mandatory(gatekeeper) requirements, the submission is non-compliant and 0% is scored, leading to technical disqualification. These criteria must be met before proceeding to the next level, level 2 scoring.

At level 2, the individual requirements as stipulated is scored in accordance with Table 2. The score obtained are weighted at 20% of the final score.

The overall threshold to meet technical qualification or compliance is 90%. The final score therefor is the Level 1 percentage weighted score plus the level 2 percentage weighted score and must be equal to or greater than 90%. Where more than one evaluator scores the individual submissions, the average of these scores will be calculated as the final score. Where the Tenderer have met the threshold, it will have to fully comply with the deficient criteria as part of further negotiations toward contract placement.

CONTROLLED DISCLOSURE

Appendix C– Technical evaluation criteria for the Windermere 1 and Windermere 2 44kV cable systems project

Table .1: Mandatory technical evaluation criteria

Level 1 Mandatory criteria			
Item	Criteria	Compliant (Yes/No)	Comment
1	Fully completed Technical Schedules.		
2	Signed letter from type tested termination supplier confirming supply of termination for this project to the tenderer.		
3	Qualified Type Test report for supplied 44kV cable and terminations, tested as a system.		
	Compliant	Yes/No	
Level 1 Mandatory weighted score = 80% (only if all criteria are met)			

Table .2: Scoring technical evaluation criteria.

Level 2 Scoring Criteria			
Item	Criteria	Weight	Comment
1	Preliminary Project plan(schedule) indicating time frame and sequence for all activities	2	
2	Project reference list of a minimum of 5 HV (44kV and above) cable systems installed over the last 5 years. Project name, voltage level, as well as client name, email and telephone contact details to be provided	2	
3	A CV and competency certification per jointer and/or installer team members indicating jointing and installation experience at HV cable level as outlined in clause 5.	4	
4	A CV for a minimum of one technical specialist and/or designers responsible for cable system design and technical support as outlined in clause 5.	2	
5	44kV cable outline drawing with dimensions and labels	2	
6	Type tested termination(44kV) outline drawings with dimensions and labels.	1	
7	Water penetration test report as part of Type test report or separately	1	
8	Bonding lead/ECC outline drawing with dimensions and labels	1	
9	Link disconnecting box outline drawings with dimensions and labels	1	
10	SVL disconnecting box outline drawings with dimensions and labels	1	
11	SVL outline drawings with ratings, dimensions and labels	1	
12	Cleats or clamp outline drawings	1	
13	Proposal for after installation tests as outline in clause 4.3	1	

CONTROLLED DISCLOSURE

	Level 2 Scoring Criteria		
Item	Criteria	Weight	Comment
	Sub-total	/20	
	Level 2 scoring weighted score = (obtained score/20) × 20%		

CONTROLLED DISCLOSURE