Eskom National Transmission Company South Africa ™	**Standard**	**National Transmission Company South Africa**

Title: **Technical Evaluation Standard for Substation Hardware**

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Supported by SCOT/SC

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Date: 2 March 2026

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1. Introduction

This document has been developed in accordance with NTCSA Procurement and Supply Management Procedure 32-1034 and is used to define the standard technical evaluation criteria to be used when evaluating pre-qualification submissions.

The document defines various aspects required to perform the technical evaluation and contains the evaluation criteria used at paper evaluation and the associated sample evaluation.

2. Supporting Clauses

2.1 Scope

The scope of work for this tender includes the manufacture, testing and supply of substation hardware.

2.1.1 Purpose

The purpose of this document is to provide guidance for the technical evaluation of substation hardware.

2.1.2 Applicability

This document shall apply throughout National Transmission Company South Africa SOC Ltd Reg No 2021/539129/30.

2.1.3 Effective date

Same as authorisation 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] 32-1034, NTCSA Procurement and Supply Management Procedure

[2] 240-48929482, Tender Technical Evaluation Procedure

[3] ISO 9001, Quality Management Systems

[4] SANS 61284:1997, Overhead lines — Requirements and tests for fittings

[5] 240-60777474, Standard for suspension and strain assemblies and for hardware for overhead powerlines

2.2.2 Informative

[1] 0.54/412 drawings

2.3 Definitions

2.3.1 Document

Definition	Description
Accredited testing laboratory/authority	A laboratory which is ISO/IEC 17025 accredited and/or that holds valid certification issued by ILAC (International Laboratory Accreditation Corporation) or one of its members.
Certified test report	A certificate of tests performed as specified within the specification, and carried out by an accredited authority or by the manufacturer and witnessed by an accredited authority that has been accredited in accordance with ISO/IEC 17011.
NTCSA assessment / evaluation representative(s)	The person(s) appointed by NTCSA to perform evaluation of tender submission (s) in line with NTCSA requirements.
Routine test	Tests done to verify the quality and uniformity of the workmanship and materials used in the manufacture of substation Hardware.
Type test	Tests done on the completion of the development of a new design to establish representative performance data. They need to be repeated if the design is changed to modify its performance or there is a change in the manufacturing process.

2.4 Abbreviations

Abbreviation	Explanation
ISO	International Organization for Standardization
IEC	International Electrotechnical Commission
NTCSA	National Transmission Company South Africa
SANS	South African National Standards

2.5 Roles and Responsibilities

Suppliers are responsible for manufacturing, testing and supplying products in accordance with document [4]. All personnel involved within the substation environment shall ensure compliance to these requirements and that hardware are evaluated in accordance with this document.

2.6 Process for Monitoring

All hardware to be supplied to NTCSA shall be in accordance with [4] and shall be evaluated against the criteria as stipulated in this document.

2.7 Related/Supporting Documents

This document must be applied together with document SANS 61284:1997.

3. Requirements

3.1 General

The technical evaluation for the substation hardware shall be composed of two main parts namely documentation evaluation and a factory evaluation.

The evaluation criteria will be used to measure the supplier's ability to supply NTSCA hardware and fittings in compliance with the specific requirements as stated in NTCSA's Standards, South African National Standards, International Standards (if there is no South African Standard available) and specific user stipulations.

This will be achieved by conducting the desktop evaluation and a product sample evaluation. In addition, it may be deemed necessary by the technical evaluation team to undertake a Factory Assessment and Verification to review the production plant wherein the items are manufactured.

For the supplier's submission to be compliant all tender technical returnables must be submitted as required, and score at least 70% in the qualitative evaluation.

3.2 Desktop Evaluation

The desktop evaluation shall be conducted by the NTCSA assessment representatives. This part of the evaluation will start when submissions are opened the first time. It begins with the confirmation that all tender technical returnables have been submitted Level 1 and will proceed to that of the qualitative criteria. Refer to Appendix A. Successful submissions will then proceed to the qualitative evaluation for a detailed analysis of each submission.

For the qualitative criteria, the NTCSA evaluating representatives will go through the remaining submissions in detail and score each item evaluated. Refer to Appendix B. The tender submission must score a minimum of 70% in the qualitative evaluation to be considered as technically qualified.

3.3 Sample Evaluation

As part of the qualitative tendering criteria suppliers are required to submit samples for evaluation. The samples should be the exact products that will be supplied in the event that the supplier is awarded the tender.

The tender enquiry documents shall include a list of samples to be evaluated as well as the stage in the tender process when the samples should be submitted/made available for evaluation. This will be either:

- As part of the original tender submission together with all tender and technical returnables, or
- Submitted after completion of the desktop evaluation (applicable only to submissions that were successful in the qualitative evaluation as stipulated in 3.2 above), or
- Made available for evaluation to coincide with the factory evaluation (applicable only to submissions that were successful in the qualitative evaluation as stipulated in 3.2 above).

NB: A factory evaluation will only be conducted if the supplier has met the requirements in Appendix A and B.

3.4 Factory Evaluation

NTCSA will do factory assessments to assess the ability and readiness of the supplier for manufacturing and supplying of Hardware in accordance with [5] should the need arise.

This assessment is performed based on assessing the supplier's capability to enter a contract with NTCSA with respect to a specific product or service.

This report and any actions that are listed or recommended because of this assessment, is by no means a confirmation or guarantee that any contract will be entered into by NTCSA and the supplier or that post contract performance has been achieved.

Any actions undertaken by the supplier because of this report is for the supplier's account. Any liability for the said actions undertaken by the supplier is not transferrable to NTCSA in any way.

The assessment team has no authority or responsibility in the decision taken by NTCSA with respect to contracting for a product or service.

Any statements, intentions and/or actions expressed by the assessment team during the assessment and post the assessment has no effect and does not constitute any liability to NTCSA with regards to contract placement or post contract performance guarantees.

NTCSA evaluating representatives will contact and arrange to visit the factory of the tenderers whose submissions have passed the desktop and sample evaluation.

At the factory of each supplier, the NTCSA evaluating representatives will conduct the in-factory product evaluation using the criteria in Appendix C. The criteria for this evaluation are not point scored but are assessed on a Yes/No basis on whether or not they have been met satisfactorily. An assessment of 'No' against any criterion may eliminate the tenderer from further consideration. The criteria as per Appendix D will be used for the factory assessment and is point scored. The minimum score required to be considered as a supplier must be 70%.

At the end of this exercise, the NTCSA evaluating representatives will list all the deviations, if any, on the factory product and assessment evaluation agreement (refer to Appendix D). The NTCSA representatives will conduct a formal discussion with the tenderer on these deviations. Herein, the tenderer will be given an opportunity to express whether they agree or disagree with NTCSA's findings and if they will meet NTCSA requirements before/upon the contract being awarded. At the end, NTCSA and the representatives of the tenderer will sign the factory product and assessment evaluation agreement which will be used to conclude the technical evaluation report. Where the tenderer has agreed to meet NTCSA requirements, all of these will form part of the contract and the verification that will be conducted afterwards.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Subhas Maharaj	**Senior Manager– Substation Engineering**
Benny Tladi	**Middle Manager – Substation Engineering**
Nkuli Pompi	**Middle Manager – Substation Engineering**
Derrick Delly	**Chief Engineer – Substation Engineering**
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Trevino Moonsamy	**Chief Engineer – Substation Engineering**
Sydney Mukhawane	**Chief Technologist – Substation Engineering**
Percy Seboco	**Chief Technologist – Substation Engineering**

5. Revisions

Date	Rev.	Compiler	Remarks
September 2025	1	R Ramnarain	First Issue

6. Development Team

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

- Sipho Zulu
- Bharat Haridass
- Derrick Delly

7. Acknowledgements

None.

Appendix A : Desktop Documentation Evaluation: Tender Technical Returnables

Tender technical returnables are not point scored. These are assessed on a Yes/No basis as to whether or not all required technical returnables have been submitted. An assessment of 'No' against any criterion may eliminate the tenderer from further consideration. All submissions must comply with [4], SANS 61284:1997, Overhead lines — Requirements and tests for fittings and [5], 240-60777474, Standard for suspension and strain assemblies and for hardware for overhead powerlines. The tender technical returnables are:

LEVEL 1 CRITERIA	YES	NO
Is all information supplied in English?		
Ability to supply complete assemblies including all shackles, yokes and other hardware components that make up the assemblies. Evidence that complete assemblies can be supplied. Documents or company catalogue to be submitted to verify this aspect.		
Ability to supply assemblies for single, twin, triple conductor configurations as a minimum requirement as per NTCSA conceptual drawings. Proof in the form of technical drawings indicating complete assembled assemblies as well as separate individual drawings of components, indicating assembly or component strength, dimensions, type of material and key processes, mass etc, to be supplied.		
Confirm that manufacturing, design and testing will be in accordance with SANS IEC 61284:1997. Letter stating this aspect to be submitted, as well as company policies stating this requirement.		
All testing to be done by laboratories that have calibrated equipment and competent personnel capable of operating and performing tests correctly. Documents containing laboratory setup, equipment lists, equipment calibration certificates, testing personnel qualification, laboratory procedures for testing to be submitted. Main criteria are that the laboratory must have an ISO 9001 management system in place or a management system that conforms to ISO 9001.		
Show evidence of Type testing on each individual item, in accordance with SANS IEC 61284: 1997. For this tender, a signed letter is required confirming that all items tendered for have been fully type tested and are ready for use.		
Show evidence of Sample testing in accordance with SANS IEC 61284: 1997. For this tender, documents showing that the above requirements can be met.		
Show evidence of Production testing in accordance with SANS IEC 61284: 1997. For this tender, documents showing that the above requirements can be met.		
Indicate the maximum strength class of hardware that you can supply.		

Appendix B : Desktop Documentation Evaluation: Qualitative Criteria

After it has been confirmed that all the tender technical returnables have been submitted, the submission will be assessed against the following criteria (shown below with their weightings)

Criteria	Threshold/Score	Full Score	Minimum Required
Full Assembly	70%/109	155	109
Individual Items	70%/20	28	20
Total	70%/129	183	129

Threshold: The score that each tenderer receives will provide a numeric basis for tender comparison. The minimum weighted average score required for substation hardware to be considered must be 70% or above.

NO	Item Description		Assemblies		Please indicated with "X"						
	Single Strain assembly		Conductor	Configuration Single/Twin/Trip Quad/Hex	Offered (X)	Technical information required-0-not supplied, 1 supplied					FINAL TECHNICAL COMMENTS
	Type	Drawing number				Drawing supplied.	Overall length mentioned	Individual items numbered/ code specified and load rating specified	Material type for each item stipulated	Lengths for individual items or critical items mentioned.	
1	A40	0.54/412 sheet 50	Centipede	Single							
2	A41	0.54/412 sheet 50	Bull	Single							
3	B40	0.54/412 sheet 50	Centipede	Twin							
4	B41	0.54/412 sheet 50	Bull	Twin							
5	B42	0.54/412 sheet 50	Centipede	Twin							
6	B43	0.54/412 sheet 50	Centipede	Twin							
7	B44	0.54/412 sheet 50	Bull	Twin							
8	B45	0.54/412 sheet 50	Bull	Twin							
9	BB40	0.54/412 sheet 50	Bull	Triple							

	V Strain String Assembly		Conductor	Configuration Single/Twin/Trip Quad/Hex	Offered (X)	Drawing supplied.	Overall length mentioned	Individual items numbered/ code specified and load rating specified	Material type for each item stipulated	Lengths for individual items or critical items mentioned.	
10	C40	0.54/412 sheet 51	Centipede	Twin							
11	C41	0.54/412 sheet 51	Bull	Twin							
12	C42	0.54/412 sheet 51	Bull	Twin							
13	CC40	0.54/412 sheet 51	Bull	Triple							

	Suspension String Assembly		Conductor	Configuration Single/Twin/Trip Quad/Hex	Offered (X)	Drawing supplied.	Overall length mentioned	Individual items numbered/ code specified and load rating specified	Material type for each item stipulated	Lengths for individual items or critical items mentioned.	
14	D40	0.54/412 sheet 52	Centipede	Single							
15	D41	0.54/412 sheet 52	Bull	Single							
16	E40	0.54/412 sheet 52	Centipede	Twin							
17	E41	0.54/412 sheet 52	Bull	Twin							
18	E42	0.54/412 sheet 52	Bull	Twin							
19	E43	0.54/412 sheet 52	Centipede	Twin							
20	E44	0.54/412 sheet 52	Bull	Twin							
21	E45	0.54/412 sheet 52	Centipede	Twin							
22	E46	0.54/412 sheet 52	Bull	Twin							
23	E47	0.54/412 sheet 52	Centipede	Twin							
24	EE40	0.54/412 sheet 52	Bull	triple							

	V Suspension String Assembly		Conductor	Configuration Single/Twin/Trip Quad/Hex	Offered (X)	Drawing supplied.	Overall length mentioned	Individual items numbered/ code specified and load rating specified	Material type for each item stipulated	Lengths for individual items or critical items mentioned.	
25	F40	0.54/412 sheet 53	Centipede	Twin							
26	F41	0.54/412 sheet 53	Bull	Twin							
27	F42	0.54/412 sheet 53	Bull	Twin							
28	F43	0.54/412 sheet 53	Centipede	Twin							
29	F44	0.54/412 sheet 53	Centipede	Twin							
30	F45	0.54/412 sheet 53	Bull	Twin							
31	FF40	0.54/412 sheet 53	Bull	triple							

TOTAL SCORE ACHIEVABLE	**155**
THRESHOLD/Score	**70%/129**

No	Item	Description		Substation Hardware Components	Please indicated with "X"	Technical requirements	
			drawing number	Conductor eg Tern, Wolf, Bear	Offered (X)	Drawing provided	Comments
1	Extension Strap	OVERALL LENGTH: 508mm * OVERALL WIDTH: 51mm * MATERIAL: 16mm THICK * HOLE CENTRES: 470mm * HOLES 19mm DIAMETER	0.54/412 sheet 42	n/a			
2	Clevis Ball - 16mm 16L 80CL 120kn	CLEVIS OPENING : 18mm * BALL DIMS : TO SANS 60120 DESIGNATION 16 * CLEVIS DIMS : TO SANS 60471 DESIGNATION 16L * NOMINAL COUPLING LENGTH : 80mm * MINIMUM FAILING LOAD : 120kn		n/a			
3	Socket Clevis	Load rating: 28 knm; to fit 16 mm i.e.c. Ball size; clevis open 18.5mm; pin 16 mm diameter; pin centre to socket centre 60 mm		n/a			
	Yoke Plates						
4	YP1	Plate: material: crs; application: yoke; suppl p/n: el337; triang 150mm 120kn hole centers length: 152mm; hole centers width: 64mm	0.54/412 sheet 44	n/a			
5	YP-1C	Plate: dimensions: thk 16 mm; material: ms galv hot dip sabs 763; application: yoke; suppl p/n: yp1-c 150ctn; reference no: yp1-c; 150mm hole centres	0.54/412 sheet 44	n/a			
6	VYP-C1	Plate: type: yoke v; dimensions: thk 16 mm; material: gs sabs 763 hot dip; drawing no: eskom mp-s1039; reference no: vyp-c1, mc wade; 150 ctn; 15mm hole centres; enc:- ssh002; vendors are responsible for ensuring that they are performing against the correct drawing revision number (if applicable).	0.54/412 sheet 54	n/a			
7	VYP-C2	Plate: type: yoke v; dimensions: thk 16 mm; material: gs sabs 763 hot dip; drawing no: eskom mp-s104; reference no: vyp-c2, mc wade; 165mm and 330mm hole centers; vendors are responsible for ensuring that they are performing against the correct drawing revision number (if applicable).	0.54/412 sheet 54	n/a			
	Strain Clamps						
8	Pistol type strain clamp - 38 mm comes with socket tougue	Clamp, strain: type: 4 bolt pistol, conductor: 30-40 mm, clamp material: al; conductor range 32mm to 42mm dia; clevis open 40mm; suitable for dinosaur bearsfort and bull	0.54/412 sheet 50	Bull			

		conductor; complete with socket tongue					
9	Pistol type strain clamp - 26 mm comes with socket tougue	Clamp, strain: type: 3 bolt pistol; conductor: 28.6-19 mm; clamp material: aluminium; clevis open 35mm; suitable for panther, bear, centipede and zebra conductor; complete with socket tongue	0.54/412 sheet 50	Centipede			
10	Pistol type strain clamp - 17 mm comes with socket tougue	Clamp, strain: type: 3 bolt reversed pistol; conductor: 5-20.5 mm; clamp material: aluminium; reference no: st5-20.5 and st70-16; including socket-tongue	0.54/412 sheet 50	Hare			
11	Strain clamp 48 mm	Clamp, strain: type: 3 bolt, conductor: 38.4 mm, clamp material: mi galv sabs 763; suitable for bull conductor	0.54/412 sheet 50	Bull			
12	Strain clamp 36 mm	Clamp, strain: type: 3 bolt; clamp material: al; centipede; vendors are responsible for ensuring that they are performing against the correct drawing revision number (if applicable).	0.54/412 sheet 50	Centipede			
13	Strain clamp - 38 mm comes with Twisted Clevis Tongue	Clamp, strain: conductor: 30-40 mm; clamp material: al; clevis open 43mm; suitable for dinosaur and bull conductor; complete with twisted clevis tongue; vendors are responsible for ensuring that they are performing against the correct drawing revision number (if applicable).	0.54/412 sheet 50	Bull			
14	Strain clamp - 26 mm comes with Twisted Clevis Tongue		0.54/412 sheet 50	n/a			
	Earthwire						
15	10-21,5 mm (EW1)	Clamp, strain: type: single pistol; capacity: 70 kn; conductor: 10-21.5 mm; clamp material: aluminium; specification: sans 61284; sans 60471; ew; steel; 3 bolt; clevis open	0.54/412 sheet 41	Hare			
16	10-21,5 mm (EW2) c/w Twisted Clevis Tongue	Clamp, strain: type: 3 bolt pistol; conductor: 5-20.5 mm; clamp material: aluminium; reference no: ew2+tct70-16; clevis open 25mm; complete with twisted clevis; range 10,0mm to 21,5mm dia	0.54/412 sheet 41	Hare			
17	3,7 – 14,3 Dia. (PG Clamp) For Overhead E/W Hare Conductor	Clamp, strain: type: al to cu; 2 bolt parallel groove; capacity: 14.3 mm; conductor: 3.7-14.3 mm; clamp material: aluminium; current rating 350 amps; length 84mm; width 54mm; height 40mm	0.54/412 sheet 41				
	Suspension Clamps						

18	26-38 mm c/w Socket Tongue	Clamp, suspension: conductor: 40-25 mm, clamp material: mi galv sabs 763; reference no: m14m6ad7009; pivoted	0.54/412 sheet 52				
19	20-30 mm CW ST-SPA 20/30 for 26,5 mm Conductor	Clamp, suspension: conductor: 40-25 mm; clamp material: aluminium; pivot; clevis open 30mm; suitable for zebra, centipede, dinosaur and bull; complete with socket tongue; mc wadetype	0.54/412 sheet 52	Bull			
20	30-40 mm CW ST-SPA 30/40 for 38,3 mm Conductor	Clamp, suspension: conductor: 40 kn; clamp material: aluminium; capacity: 38 mm; type: socket tongue with cradle; pivot; clevis open 30mm; suitable for bull dia 38,30mm	0.54/412 sheet 52	Bull			
21	17 mm c/w Socket Tongue	Clamp, suspension: conductor: 15-25 mm; clamp material: mi galv sabs 763; pivot; vendors are responsible for ensuring that they are performing against the correct drawing revision number (if applicable).	0.54/412 sheet 52	Hare			
22	48 mm c/w Socket Tongue		0.54/412 sheet 52				
23	38 mm c/w Twisted Clevis Tongue	Clamp, suspension: conductor: 40-25 mm; clamp material: aluminium; pivot;clevis open 18mm; suitable for zebra, centipede, dinosaur and bull;conductor; complete with twisted clevis tongue; mc wade type	0.54/412 sheet 52	Bull			
24	26 mm c/w Twisted Clevis Tongue	Clamp, suspension: pivot; clevis open 30mm; suitable for zebra, centipede, dinosaur and bull; conductor; complete with twisted clevis tongue	0.54/412 sheet 52				
25	38 mm Tongue (EC74) for 48 mm and 36 mm Strain Clamps	Sock-tong 16ball 38tong 66lg st-70/38					
	Corona Rings						
26	Universal Corona ring	Clamp, strain: type: 3 bolt; conductor: 28.5-19 mm; clamp material: aluminium; clevis open 32mm; suitable for panther, bear; centipede and zebra; complte with twisted clevis tongue	0.54/412 sheet 48				
27	Corona Ring - ECRSTU L/H	Ring: type: corona, lh; inside diameter: 499 mm; outside diameter: 585 mm; width: 417.5 mm; material: al alloy <0.1 pct cu; grade: 6101a; rating: 420 kv; style: elongated; drawing no: 0.54/412 sheet 48a rev 0; reference no: ecrst-lh; to be smooth on total ring surface; nicks burrs and scratches not	0.54/412 sheet 48A				

		acceptable; complete with hot dipped galvanized fixing bolts, nuts and washers;					
28	Corona Ring - ECRSTU R/H	Ring: type: corona, rh; inside diameter: 499 mm; outside diameter: 585 mm; width: 417.5 mm; material: al alloy <0.1 pct cu; grade: 6101a; rating: 420 kv; style: elongated; drawing no: 0.54/412 sheet 48b rev 0; reference no: ecrst-rh; to be smooth on total ring surface; nicks burrs and scratches not acceptable; complete with hot dipped galvanized fixing bolts, nuts and washers;	0.54/412 sheet 48B				

TOTAL SCORE ACHIEVABLE	**28**
THRESHOLD/Score	**70%/20**

Appendix C: In-Factory Product Assessment

Eskom	**SUBSTATION HARDWARE** **IN-FACTORY PRODUCT ASSESSMENT CHECK SHEET**

MAIN REPRESENTATIVES

Company			Country	
Eskom Transmission Division	Name		Signature	
	Designation		Date	
Tenderer	Name		Signature	
	Designation		Date	
Factory	Name		Signature	
	Designation		Date	

PRODUCT EVALUATED

INSPECTION SUMMARY

Item	Inspection Criteria	Eskom Standard Clause in [5]			NTCSA Comments
		Clause	Page	Comply	

Appendix D: Factory Assessment

Eskom	**SUBSTATION HARDWARE** **FACTORY ASSESSMENT CHECK SHEET**

MAIN REPRESENTATIVES

Company					Country			
Eskom Transmission Division	Name		Designation		Signature		Date	
Tenderer	Name		Designation		Signature		Date	
Factory	Name		Designation		Signature		Date	

D1 WORK SYSTEMS

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D1.1	Works procedures and instructions: a. What work procedures are in place? b. What ISO standards are used?	Both in place and documents are traceable	5	
		Both in place, but documents non-traceable	4	
		Either ‘a’ or ‘b’ are omitted	2	
		None	0	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D1.2	QMS documented and applied? QCP documented and applied? (choose one of each)	QMS and QCP's in place and traceable	5	
		QMS and QCP's in place	4	
		QMS and some QCP's in place	1	
		None in place	0	
D1.3	Quality inspections, audits and reviews: Separately list all inspections, audits and reviews done. (choose one of each)	All inspections, audits and reviews in place, up to date and traceable	5	
		All inspections, audits and reviews in place	4	
		Some inspections, audits and reviews in place	2	
		None in place	0	
D1.4	Staff training and accreditation systems and controls: What training is offered to staff? Who are they accredited with?	Staff trained and accredited, and traceable	5	
		Staff trained and accredited, not traceable	4	
		Staff trained	2	
		Staff not trained	0	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
	(choose minimum 2 random staff members and question)			

D1: WORK SYSTEMS SCORE (maximum 20)		

D2 OPERATION – MANUFACTURING METHODS

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D2.1	Quality assurance and verification of base material	Material quality checked, handled, stored and catalogued correctly, and is traceable	5	
		Material quality checked, handled, stored and catalogued correctly	4	
		Some of the above not complied to	2	
		No traceability of base material, or stored incorrectly	0	
D2.2	Clean conditions in workshop/factory	Clean-room environment (dust free, static free)	5	
		Workshop is clean overall	4	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
		Workshop is fairly clean	2	
		Workshop not clean	0	
D2.3	What is the quality and availability of test reports?	Test certificate has all relevant data, easy to read and understand, signed off by authorised personnel and is traceable	5	
		Test certificate has all relevant data, easy to read and understand, signed off by authorised personnel	4	
		Test certificate has relevant data, not signed off by authorised personnel	0	
		No test certificates are available	0	
D2.4	What is the supplier's estimate of current capacity limit?	Can meet on time delivery for Eskom Transmission Division requirements	5	
		Some potential delays for the production of NTCSA requirements	4	
		Major delays anticipated	0	
D2.5		Can meet on time delivery for our units	5	
		Some potential delays for the production of our unit	4	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
	Are there any bottlenecks in the manufacturing process? (e.g., test bay, material supply, extrusion, etc.)	Major delays anticipated	0	
D2.6	Does the supplier intend to make use of a substitute factory if capacity increase is required? If so, has it been disclosed to and evaluated by Eskom Transmission Division?	No	5	
		Yes, fully accredited	4	
		Yes, not accredited yet	0	
D2.7	How will the supplier expedite orders if required?	Adequate process to fast-track orders, and is traceable	5	
		Adequate process to fast-track orders	4	
		Process exists, but needs improvement	2	
		No process	0	
D2.8	Product compliance to specifications.	Aligns completely to Eskom standards	5	
		Partially aligns to Eskom specifications	4	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
		Doesn't align to Eskom specifications	0	
D2.9	What are factory failure rates for the last 5 years?	Less than 1%, and traceable	5	
		Less than 1%	4	
		Between 1 – 2%	2	
		Greater than 2%	0	
D2.10	What processes are in place to handle failures?	Adequate process, and is traceable	5	
		Adequate process	4	
		Process exists, but needs improvement	2	
		No process	0	

D2: OPERATION – MANUFACTURING METHODS SCORE (maximum 50)		

D3 TECHNICAL INFRASTRUCTURE

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D3.1	What manufacturing equipment/tools does the supplier have, who manufactures this equipment, what is the capacity of this equipment?	Equipment/tools bought from accredited and known manufacturers, and traceable	5	
		Equipment/tools bought from accredited and known manufacturers	4	
		Some equipment/tools bought from accredited and known manufacturers	2	
		Equipment/tools bought from unrecognised manufacturers	0	
D3.2	How are supervisors and employees trained on handling equipment?	Certificate or accreditation, and traceable	5	
		Certificate or accreditation	4	
		Some workers accredited, certified	2	
		No certificate or accreditation	0	
D3.3	What is the maintenance operating model for the production line?	Complete maintenance procedures and records, and traceable	5	
		Complete maintenance procedures and records	4	
		Incomplete maintenance procedures and records,	2	
		Limited/no maintenance procedures or records	0	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D3: TECHNICAL INFRASTRUCTURE SCORE (maximum 15)				

D4 DESIGN PRACTICES AND APPLICATIONS

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D4.1	Describe your design criteria basis and guidelines: Electrical and Mechanical	Specific software/ tools for designs are in place and used	5	
		Software/tools are available, however no clear philosophy on how it should be used	2	
		Have tools only, no philosophy	0	
D4.2	Provide design process flowchart / systems for similar products	Up to date flowchart	5	
		Flowchart not current	2	
		No flowchart	0	
D4.3	How is internal design verification/validation ensured as part of the design process?	Authorised person checks and signs off design	5	
		No checks, self-release	0	
D4.4	What is the process to deal with design change requests, internal or external?	Formalised process, and traceable, including updating of manufacturing plan and schedules	5	
		No formal process	0	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D4.5	How is the final/approved design linked to the manufacturing process?	Approved inspection and test plans includes hold points to verify execution of design	5	
		No monitoring system	0	
D4.6	How does the system flag excursions outside internal design rules?	Flags excursions, calibration is current	5	
		Flags some but not all excursions	4	
		No excursions flagged, not calibrated properly	0	
D4.7	How do you support/co-ordinate external partners for component manufacturers, if any?	Clear functional role, responsibilities and collaboration with suppliers	5	
		None	0	

D4: DESIGN PRACTICES AND APPLICATIONS SCORE (maximum 35)		

D5 TESTING FACILITY AND PRACTICES

Item	Evaluation aspect	Criteria	Score	Evidence and comments
D5.1	Provide proof of calibration of all test equipment	Calibrated by accredited person/institution within date and traceable	5	
		Calibrated by accredited person/institution within date	4	
		Calibrated within date	2	
		Not calibrated	0	
D5.2	Dimensional requirements	Within requirements and traceable	5	
		Not within requirements	0	
D5.3	Electrical requirements	Within requirements and traceable	5	
		Not within requirements	0	
D5.4	Mechanical requirements	Within requirements and traceable	5	
		Not within requirements	0	
D5.5	Smoothness requirements	Within requirements and traceable	5	
		Not within requirements	0	
D5.6	Test capabilities	Fully capable of performing type, acceptance and routing tests, and is traceable	5	
		Fully capable of performing acceptance and routing tests, and is traceable	4	

Item	Evaluation aspect	Criteria	Score	Evidence and comments
		Capable of performing acceptance and routing tests	2	
		Cannot perform any tests	0	
D5.7	Reports, timeousness, quality thereof	All test reports produced immediately, checked by accredited person, and is traceable	5	
		All test reports produced immediately, and is traceable	4	
		Test reports produced	2	
		No test report available	0	
D5: TESTING FACILITY AND PRACTICES SCORE (maximum 35)				

Criteria	Section	Maximum score	Achieved score
Work systems	D1	20	
Operation – manufacturing methods	D2	50	
Technical infrastructure	D3	15	
Design practices and applications	D4	35	

Testing facility and practices	D5	35	
	Total	**155**	
		Percentage obtained = $\left(\frac{Achieved\ Score}{155}\right) * 100$	

Factory threshold: The minimum score required to be considered as a supplier must be 70% or above.

Eskom	**SUBSTATION HARDWARE** **FACTORY PRODUCT and ASSESSMENT EVALUATION AGREEMENT**

Item	Deviation Description	Response	Tenderer		Factory		Eskom		Target Date
			Agree	Disagree	Agree	Disagree	Agree	Disagree	

MAIN REPRESENTATIVES

Company					Country			
Eskom	Name		Designation		Signature		Date	
Tenderer	Name		Designation		Signature		Date	
Factory	Name		Designation		Signature		Date	

CONTROLLED DISCLOSURE