Eskom	Report	Technology

Title: **TECHNICAL RETURNABLES FOR THE PROCUREMENT OF STEEL MONO POLES**

Unique Identifier:	**240-143268939**
Alternative Reference Number:	**<n/a>**
Area of Applicability:	**Engineering**
Documentation Type:	**Report**
Revision:	**1**
Total Pages:	**13**
Next Review Date:	**n/a**
Disclosure Classification:	**Controlled Disclosure**

PCM Reference: **<xxxxxx>**

SCOT Study Committee Number/Name: **<Number or name>**

Content

Page

1. Introduction 4
2. Supporting Clauses 4
   - 2.1 Scope 4
     - 2.1.1 Purpose 4
     - 2.1.2 Applicability 4
   - 2.2 Normative/Informative References 4
     - 2.2.1 Normative 4
     - 2.2.2 Informative 4
   - 2.3 Definitions 4
     - 2.3.1 General 4
     - 2.3.2 Disclosure Classification 5
   - 2.4 Abbreviations 5
   - 2.5 Roles and Responsibilities 5
3. CONDITIONS FOR SUB-CONTRACTING AND JOINT VENTURES 5
4. Technical Evaluation Stages 6
   - 4.1 Evaluation Stage 1 (Desktop) 6
   - 4.2 Evaluation Stage 2 (Desktop) 6
   - 4.3 Evaluation Stage 3 (Factory) 6
5. Requirements 6
   - 5.1 Mandatory Tender Returnables (Stage 1) 6
     - 5.1.1 Technical File 6
     - 5.1.2 Design 6
     - 5.1.3 Plasma/laser cutter 7
     - 5.1.4 Bending brake 7
     - 5.1.5 Submerged arc welder 7
   - 5.2 Evaluation of Functionality Threshold (Stage 2) 7
     - 5.2.1 POLASA Membership 7
     - 5.2.2 Drawing Office 7
     - 5.2.3 Previous related manufacturing experience 7
     - 5.2.4 Galvanising 8
     - 5.2.5 Workshop space 8
     - 5.2.6 Handling 8
     - 5.2.7 Loading and storage 8
   - 5.3 Scoring of Functionality Threshold 8
6. Authorisation 8
7. Revisions 9
8. Development team 9
9. Acknowledgements 9

Annex A – Requirement Tables 10

Tables

Table A.1: ECSA Registered Design Technologist/Engineer's Details 10

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

Table A.2: Mandatory Machine List Requirements....11

Table A.3: Previous related manufacturing experience....12

Table A.4: Functionality Threshold Scoring....13

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

1. Introduction

This document sets out the criteria to be used when evaluating tenderers for the design, manufacture and supply of steel mono pole structures to be used on Eskom sub-transmission overhead line projects.

2. Supporting Clauses

2.1 Scope

This document sets out the technical evaluation criteria for tenderers who wish to design, manufacture and supply of steel mono pole structures to Eskom Distribution.

2.1.1 Purpose

The aim of the document is to formalize the requirements that should be met by the tenderers for the design, manufacture and supply of steel mono pole structures. It is used to determine a tenderer's capability and experience relating to the design, manufacture and supply of steel mono pole structures.

2.1.2 Applicability

This document shall apply specifically to Eskom Distribution.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

[1] ISO 9001 Quality Management Systems.

[2] 32-1034, Eskom Procurement and Supply Chain Management Procedure

[3] 240-48929482, Tender Technical Evaluation Procedure

[4] Occupational Health & Safety Act (Act 85 of 1993)

[5] 240-75883378 Specification For Steel Pole Overhead Line Supports

[6] SANS 10280-1:2013, Overhead power lines for conditions prevailing in South Africa, Part 1: Safety

2.2.2 Informative

None

2.3 Definitions

2.3.1 General

Definition	Description
Certified	Documents which have been certified to be a true copy of the original by a Commissioner of Oaths
Expired	All documents that reach their expiring date before the date of tender will be considered to be expired and not accepted.
Functionality	Means the ability of a supplier to provide goods or services in accordance with specifications as set out in the tender documents.

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

Definition	Description
Responsive	Means a tender that complies with all the terms and conditions of the enquiry, without material deviation or qualification.
Sub-transmission	Refers to networks with nominal operating voltages of between 44 and 132kV in Eskom Distribution.

2.3.2 Disclosure Classification

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

2.4 Abbreviations

Abbreviation	Description
CAD	Computer-Aided Design
ECSA	Engineering Council of South Africa
ORHVS	Operating Regulations for High Voltage Systems
PDE	Power Delivery Engineering
POLASA	Powerline Association of South Africa
SI	Standards Implementation Department

2.5 Roles and Responsibilities

It is the responsibility of the relevant Eskom procurement practitioner to check with the SI department every time prior to approaching the market regarding the validity of this document.

Prospective tenderers are to be professional and honest in the submission of evidence as per the requirements stipulated in this document.

All members within the Eskom technical evaluation team shall ensure that the tenderer's ability is evaluated in accordance with this document.

3. CONDITIONS FOR SUB-CONTRACTING AND JOINT VENTURES

Sub-contracting shall only be allowed if the tenderer is adding value to the product offered to Eskom.

The following are possible sub-contracting activities that are seen as NOT adding value to the product offered to Eskom:

a) The tenderer only galvanizes the steel mono poles and subcontracts design and manufacturing functions.

b) The tenderer only supplies the steel mono poles and subcontracts the design, manufacturing and galvanizing functions.

The following are possible sub-contracting activities that are seen as adding value to the product offered to Eskom:

a) The tenderer manufactures the steel mono poles but is sub-contracting design and galvanizing.

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

4. Technical Evaluation Stages

4.1 Evaluation Stage 1 (Desktop)

This will be a desktop evaluation of the mandatory tender returnable as per 5.1 ONLY. The tenderer needs to show full compliance in order to pass the Evaluation Stage 1.

Only tenderers whom pass Evaluation Stage 1 will be further evaluated.

4.2 Evaluation Stage 2 (Desktop)

This will be a desktop evaluation of the functionality threshold as per 5.2. The tenderer is required to achieve a minimum score of 8 out of 11 in order to pass Evaluation Stage 2.

Only tenderers whom pass Evaluation Stage 2 will be further evaluated at the factory.

4.3 Evaluation Stage 3 (Factory)

The tenderers which are successful in both Evaluation Stages 1 and 2 will be required to make the necessary resources available for a factory visit. During the visit all information provided for Evaluation Stages 1 and 2 will be visually assessed and verified. Note this verification will include checking of the factory's documented processes and procedures.

Only tenderers whom pass Evaluation Stage 3 will be listed as technically approved.

5. Requirements

Should the contractor fail to provide any mandatory tender returnable as stipulated in 5.1, the tender submission will be deemed non-responsive and disqualified.

Eskom will conduct factory visits and/or evaluate samples following the desktop evaluation process for purposes of verification.

5.1 Mandatory Tender Returnables (Stage 1)

Please note that if any of the requested evidence stated below is not submitted and fully compliant, the tenderer will be disqualified without Eskom requesting the tenderer to submit outstanding documentation. Eskom will treat all documents submitted as confidential.

5.1.1 Technical File

A file containing evidence of all mandatory and functional requirements shall be submitted separately from any other non-technical tender submissions. It is advisable that the tenderer should utilise the exact same file numbering/order as per this document to assist the Eskom evaluation team in locating the evidence.

5.1.2 Design

Pole designs shall be done by an ECSA registered professional technologist/engineer.

Proof to be submitted:

a) Certified copy of ECSA registration certificate of the design technologist/engineer (Name and ECSA number).

b) Submission of Table 1: ECSA Registered Design Technologist/Engineer's Details.

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

5.1.3 Plasma/laser cutter

Plasma/laser cutter shall be able to cut ≤ 20mm plate.

Proof to be submitted:

a) The machine including all relevant information (name, model- and serial numbers) shall appear on Table 2: Mandatory Machine List Requirements **or**,

b) If subcontracting this function, submit letter of agreement and all relevant information (name, model- and serial numbers) shall appear on Table 2: Mandatory Machine List Requirements.

5.1.4 Bending brake

Bending brake shall be at least 10m in length and capable of bending 8mm plate.

Proof to be submitted:

a) The machine including all relevant information (name, model- and serial numbers) must appear on Table 2: Mandatory Machine List Requirements **or**,

b) If subcontracting this function, submit letter of agreement and all relevant information (name, model- and serial numbers) must appear on Table 2: Mandatory Machine List Requirements.

5.1.5 Submerged arc welder

Submerged arc welder shall be at least 10m in length and capable of performing full penetration welds on 8mm plate.

Proof to be submitted:

a) The machine including all relevant information (name, model- and serial numbers) must appear on Table 2: Mandatory Machine List Requirements **or**,

b) If subcontracting this function, submit letter of agreement and all relevant information (name, model- and serial numbers) must appear on Table 2: Mandatory Machine List Requirements.

5.2 Evaluation of Functionality Threshold (Stage 2)

The following aspects will be evaluated based on information provided. The tenderer shall complete Table 4: Functionality Threshold Scoring in Appendix A.

A minimum score of 8 out of 11 is required in order to pass this technical evaluation stage.

5.2.1 POLASA Membership

Tenderers whom are members of POLASA shall submit proof of membership. Note that only membership in the name of the tendering company will contribute to the final score.

5.2.2 Drawing Office

Tenderers shall indicate the availability of an in-house drawing office with CAD operators. Tenderers should also list the design drawing software used in Table 4: Functionality Threshold Scoring.

5.2.3 Previous related manufacturing experience

Tenderers shall submit evidence of previous related experience in the following areas ranked from most to least preferred:

- Have manufactured shaped power line structures **or**,
- Have manufactured high mast lighting structures **or**,
- Have manufactured street lighting structures

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

The following project details will be the minimum evidence required:

- Customer name
- Contact details of customer
- Scope of works
- Project value
- Start and end dates

Tenderers must complete Table 3: Previous related manufacturing experience in Appendix A.

5.2.4 Galvanising

Tenderers shall provide galvanising bath dimensions and details of the galvanizing process relating to single dipping or double dipping of pole sections.

For single dipping note that the minimum galvanising bath length shall be 13.5m for diameters of up to 1.3m and 9.5m for diameters up to 1.8m.

5.2.5 Workshop space

Tenderers shall indicate whether the factory has a dedicated area for pole manufacturing. This space should be adequate for handling and preferably separated from other unrelated works.

Specify the dedicated workshop space area m^2.

5.2.6 Handling

Tenderers shall indicate whether the factory has an overhead gantry crane (specify the load capacity) **or**, whether the factory only utilise a forklift (specify the load capacity).

Poles need to be proven to be handled safely; as such the use of an overhead gantry crane will be preferred.

5.2.7 Loading and storage

Tenderers shall indicate whether the factory has a dedicated area for purposes of safe storage and access for trucks during loading of poles for transport during all stages of manufacturing i.e. pre- and post-galvanising activities etc.

Specify the dedicated factory storage space area m^2.

5.3 Scoring of Functionality Threshold

The scoring for section 5.2 shall be as indicated in Table 4: Functionality Threshold Scoring. Note that only one score may be applied per item and a minimum score of 8 out of 11 is required to be successful.

6. Authorisation

This document has been seen and accepted by:

Name and surname	Designation
Stephen Nkwane	SI Manger - GOU
Vusi Phiri	SI Manger - MOU
Bob Branfield	Senior Consultant - LES

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

7. Revisions

Date	Rev	Compiler	Remarks
Jan 2019	1	JA Bosch	New Document.

8. Development team

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

- Cobus Bosch

9. Acknowledgements

- NE Khoza – Standards Implementation MOU

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

Annex A – Requirement Tables

ECSA registered design technologist/engineer's details as requested in 5.1.2. Add more sheets if required.

Table A.1: ECSA Registered Design Technologist/Engineer's Details

Person Details	
Name & Surname	
Current employment details	
Contact Details Email Address Contact no.	
ECSA Registration Details	
Registration Number	
Discipline	
Category	
Related Experience NB: Only list positions where steel poles were designed I.e. Shaped power line structures, high mast lighting structures or street lighting structures.	
Company Name 1	
Position	
Duration	
List Steel Pole Designs Done In This Position.	
Reference Name and Contact Details	
Company Name 2	
Position	
Duration	
List Steel Pole Designs Done In This Position.	
Reference Name and Contact Details	
Form to be signed by engineer Signed by : _____ Signature : _____	

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

Mandatory machine list requirements as requested in 5.1. This table must be completed.

Table A.2: Mandatory Machine List Requirements

MACHINE	MAKE	MODEL DETAILS	SERIAL NUMBER	OWNED or SUBCONTRACTED
Plasma/laser cutter as per 5.1.3				
Bending brake as per 5.1.4				
Submerged arc welder as per 5.1.5				
Form to be signed by company owner Signed by : _____ Signature : _____				

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

Previous related manufacturing experience as requested in 5.2.3. Add more sheets if required.

Table A.3: Previous related manufacturing experience

Project name	Brief scope of work	Customer name	Customer contact details	Rand value of project	Start and end dates
Form to be signed by company owner		Signed by : _____			

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.

Functionality Threshold Scoring as per 5.2 and 5.3. Tenderers must complete this table.

Table A.4: Functionality Threshold Scoring

Item No:	Eskom specific requirement	Tenderer's response (Y/N)	Score	Max Score	Score/Comment by Eskom
5.2.1	**POLASA membership**	Yes / No		1	
	Proof submitted	Yes / No	1		
5.2.2	**Drawing office**	Yes / No		1	
	Have a drawing office and relevant design drawing software listed here	1._____ 2._____	1		
5.2.3	**Previous related manufacturing experience**			3	
	Shaped power line structures and Project details Table 3 provided **or**,	Yes / No	3		
	High mast lighting structures and Project details Table 3 provided **or**,	Yes / No	2		
	Street lighting structures and Project details Table 3 provided	Yes / No	1		
5.2.4	**Galvanising**			2	
	Galvanizing method - single dip for sections and provide bath dimensions here **or**,	Yes / No Dimensions:_____	2		
	Galvanizing method - double dip for sections and provide bath dimensions here	Yes / No Dimensions:_____	1		
5.2.5	**Workshop space**	Yes / No		1	
	Specify area	Area:_____	1		
5.2.6	**Handling**	Yes / No		2	
	Overhead gantry crane used and specified load capacity here **or**,	Load	2		
	Forklift used and specified load capacity here	Load	1		
5.2.7	**Loading and storage**	Yes / No		1	
	Specify area	Area:_____	1		
Form to be signed by company owner Signed by: _____ Signature : _____				Total = 11	

ESKOM COPYRIGHT PROTECTED

When downloaded from the WEB, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorized version on the WEB.