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2. Welding shall be so executed as to provide a smooth surface for receiving a hot-dip galvanise treatment.

### **9.3.3 Test Certificates**

The Contractor shall supply the Engineer with the following test certificates:

1. Certificates, issued by the Contractor's Quality Assurance Division, stating that all manufactured components were inspected and measured to conform to the requirements of the Drawings and Specifications, before shipment to receive Hot-dip Galvanised treatment.
2. Costs relating to inspections and issuing of certificates as described above shall be included in the unit rates for the structures.

## **9.4 Corrosion Protection of Structural Steel**

### **9.4.1 Coating System**

The coating system shall be as follows:

1. Preparation of surface by pickling (see sub-clause 5.4.3.4 of SABS 1200 HC). Structural steel shall be Aluminium-killed. Protective coating shall be a single coat of 100 micron minimum thickness Hot-dip Galvanise. No double-dipping allowed. Hot dip galvanising shall be carried out by a SABS approved institution. Hot-dip galvanised surfaces shall be fully passivized. All reasonable care shall be taken to ensure final HDG surfaces of even colour, texture and appearance.

### **9.4.2 Repair of Damaged Coatings**

Only special solder repair methods as described in sub-clause 5.10 of SABS 1200 HC and SANS 935:2007 and as approved by the Engineer, shall be acceptable for repairing unavoidable damage to HDG coatings. The approval by the Engineer shall not relieve the Contractor of this responsibility. No drilling of coated numbers will be permitted after galvanizing treatment as specified has been completed.

### **9.4.3 Schedule Items**

#### **9.4.3.1 Surface Dressing and Repairs at Place of Fabrication**

The inspections, testing and testing documentation which shall be supplied by the Contractor and the cost of which shall be included, shall be as follows:

1. The weld inspections and certificates required in terms of sub-clause reference.

2. All testing and certificates required in terms of sub-clause 7.3.4 of SANS 1200 HC (SANS 935:2007), pertaining to compliance with specifications regarding surface preparation, procedure of application and eventual thickness, quality and integrity of the HDG coating.

These tests and certificates shall likewise be performed and issued by a qualified representative of the SANS.

#### **9.4.3.2 Compact Mono Poles**

The following standards are applicable:

1. SANS10280 Code of Practise for overhead Power Lines
2. SANS 10280 Transmission line and Line Construction.
3. SANS 10280, Loading and strength of overhead transmission lines.
4. BS EN 60652:2004, Loading tests on overhead lines tower (BS 7733) (IEC 60826).
5. SANS 10280, Code of practice for overhead power lines for conditions prevailing in South Africa.

### **9.5 General Design Philosophy**

The design criteria for all structures shall be including the following:

1. The structures shall be planted in concrete foundations at a planting depth necessary to support the design working load of each type and size of pole, with a minimum depth of 2.4m in normal ground conditions.
2. Structures and components shall be designed for Wolf conductors in a double circuit formation. The structures should be designed to cater for the working loads that are likely to come onto the structures during construction as well as during operation. The structures shall withstand and counteract all forces due to the positioning of the attachments for conductors. The highest attachment shall be 600mm below the top of the structure.
3. Both terminal structures and angle strain structures shall be capable of withstanding broken wire conditions to prevent cascading failure of the line. An inline ( $0^\circ$  deviation) strain structure shall be installed every 5km to prevent cascading failure of the line in the event of broken wire conditions.
4. The Factor of Safety (FOS) shall be not less than 2.5 on calculated strength and 2.2 on type tested breaking strength for steel poles and 3.5 on calculated strength and 2.4 on type tested breaking strength for reinforced concrete spun poles.
5. The average permanent load shall be 40% of the safe working load excluding factors of safety or overload factors.
6. The ultimate moment capacity in the longitudinal direction should be at least one quarter of that in the transverse direction.
7. Environmental interactions shall be considered for the design of a pole. A bird perch is to be added to all mono poles at intermediate positions. The perching bracket shall be designed such



that it can be removed or attached independently without influencing any other hardware. The design of the perch bracket to be presented to the Engineer for approval before manufacturing or installation commences.

8. Strain structures shall withstand strain on either side of the structure and terminal structures on one side for temperature variations of  $-5^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .

## 9.6 Steel Structures

All Structures shall be hot dipped galvanized in accordance with SANS 935:2007. All steel sections shall be galvanized to A1 class and heavy duty applications. All steel sections shall fit tightly after galvanizing and shall be able to withstand the required ultimate tested loads.

Structures to be used either within 100km from the coast, or in aggressive soil conditions or in high pollution areas shall be treated with an additional epoxy coating over the galvanizing. This coating shall be applied from 200mm above the ground level to 500mm below ground level. The epoxy coating to be applied to the pole shall be approved by the Engineer.

Structural steel will be to the standards and specification as stated elsewhere in this specification.

An earthing lug shall form an integral part of the pole. The earthing lug shall be installed for the ferrule to be 200mm above the finished ground level after the pole is planted.

Connection of the Galvanised steel earthing lug to the copper earthing conductor will be done with bimetal ferrules/plating or Exothermic (CAD or similar) welding. The earth lug and ferrule will only be enclosed in the final concrete cap covering the foundation after all installations and testing of the pole earthing is completed and verified by the Engineer.

No earthing will be visible after completion of the concrete cap.

## 9.7 Ladders/Climbing System

It is required that access to the top of the pole will be by means of a permanent step ladder system. The step ladder system shall start at approximately 9m above finished ground level. The lower portion shall be accessed by means of a standard ladder to prevent unauthorised persons climbing the structures.

Climbing steps of the ladder system shall be vertically spaced at 300mm and configured such that the climber has a comfortable climbing path.

Brackets welded onto the structures for attachment, if applicable, shall not infringe on the safety clearances. The ladder system shall be designed as such that it can be removed or attached independently without influencing any other hardware.

The ladder system shall be supplied loose and bolted onto the structure on site. This will ensure that no damage is caused to the ladder during transportation.

The design of the ladder system to be presented to the Engineer for approval before manufacturing or installation commences.

The ladder supplier shall be consulted for attachment details to the ladder system.

## 9.8 Dimensions and Reinforcements

The cross sectional dimensions and the details of re-stressing wires should conform to the particulars given in the schedules.

Holes should be provided for attachment of all fixtures as per the Contractor's design submission. Additional holes should be provided below the normal position, to permit mounting of additional equipment at 0.3m, 0.6m and 0.9m below the normal height.

The permissible tolerances on the structure dimension shall be as follows:

1.  $\pm 15$ mm on the overall length of the pole
2.  $\pm 4$ mm on the cross section
3. The overall straightness of the structure (excluding thermal influences), shall be 0.1% (h/1000).

## 9.9 Structure Signs

All structures shall have data indented into the pole with the following information:

1. Manufacturer's name or trademark
2. Date of manufacture
3. Rated height in m and rated strength in kN
4. Structure serial number – consistent with batch, design and manufacturing data records.

## 9.10 Testing, Inspection, Sampling and Conformity

### 9.10.1 Destruction Type Tests

No destruction type tests are required for this project. However, certified copies of recent destruction type test shall be provided for approval by the Engineer.

### 9.10.2 Inspections

All poles selected for inspection shall be tested for overall length, cross section and straightness.

### 9.10.3 Scale of Sampling

In any batch, all poles of the same class and same dimensions shall be grouped together to constitute a lot.

If the number of poles in a lot exceeds 500, the lot shall be divided into a suitable number of sub lots such that the number of poles in any sub lot shall not exceed 500.

The acceptance or otherwise of a sub lot shall be determined on the basis of performance of samples selected from it.

The number of poles to be selected from a lot or sub lot shall depend upon its size and shall be in accordance with the levels set out in the table below: Sample Size and Criterion for Conformity.

These poles shall be selected at random.



### 9.11.4 Criteria for Conformity

A lot or sub lot shall be considered as conforming to this specification if the conditions set out in the following paragraphs are satisfied.

The number of poles tested which do not satisfy the requirements of overall length, cross section and uprightness tests shall not exceed the corresponding number given in the respective column of the above table.

If the number of such poles exceeds the corresponding number, all poles in the lot or sub lot shall be tested for these requirements and those not satisfying the requirements shall be rejected.

## 9.0 Evaluation Methodology

The evaluation will be separated into two parts. First will be the technical evaluation after which the financial evaluation will be done for those consultants that surpass the minimum accepted score for technical proposals

The weights to be used for the evaluation are as follows:

- Technical – 70%
- Financial – 30%

### 9.1 Technical Evaluation

Technical	Description	Maximum Points %
<b>Approach and Methodology</b>	Understanding of the project and scope of work	10
	Overall methodology adopted to meet the scope of work requirements	20
	Work plan with timeframes for the overall project (design plus construction)	10
<b>Maximum Points</b>		<b>40</b>
<b>Contractor experience</b>	Experience of contractor in similar projects (3 projects designed in the past 5 years)	20
	<b>Maximum Points</b>	
<b>Team Structure</b>	Qualifications of key personnel	10



	Professional body affiliation (ECSA or AESAP, PMP etc) for key personnel	10
	Three reference letters and completion certificates	20
<b>Maximum Points</b>		<b>40</b>
<b>Total Score for Technical Proposal</b>		<b>100</b>
<b>Minimum Acceptable Score for Technical Proposal</b>		<b>70</b>

## 9.2 Financial Evaluation

The financial evaluation of the bids will follow the following process:

- The evaluation team will review the financial bids and determine the evaluation price for each proposal;
- The lowest priced proposal shall be given a financial score of 100 and the other proposals shall be given a financial score which is inversely proportional to the lowest evaluated price.

## 9.3 Final Evaluation

- The weighted technical and financial scores shall be added together to give a total score for each proposal
- Proposal with highest score shall be recommended for award.

## 10.0 Submission of bids

- The technical and financial proposals should be separated and clearly marked “**TECHNICAL**” and “**FINANCIAL**”.
- The separate, sealed envelopes of both the financial and technical proposals should then be sent to SEC in a sealed envelope clearly marked “**Tender No.28 of 2019/20 MALOMA T – MALOMA 66KV UPGRADE**” and addressed to the “**Secretary to the Tender Committee**”, Eswatini Electricity Company, Eluvatsini House, Head Office, Mhlambanyatsi Road, Mbabane, Eswatini no later than 1200 hours on 11<sup>th</sup> November 2019.
- Document should be submitted with proof of payment of **E1000.00** for tender documentation.



## DATA SHEET

1	Eligibility criteria	<p>All required documentation and information highlighted below has been submitted.</p> <ol style="list-style-type: none"> <li>i. Company Profile, Form J and Form C or equivalent for foreign registered companies, and Proof of registration with the relevant professional or regulatory body.</li> <li>ii. Certified copy of Valid Trading License.</li> <li>iii. Original Tax Compliance Certificate.</li> <li>iv. Certified copy of VAT Registration Certificate</li> <li>v. Police Clearance for Directors</li> <li>vi. Certified copy of Labour Compliance Certificate</li> <li>vii. Latest audited financial statements.</li> <li>viii. Original Receipt for Purchase of Tender Document</li> </ol> <p>NB: A tender which does not contain the documents listed above shall be deemed to be non-responsive and eliminated from further evaluation</p>
2	Qualification criteria	<p>Qualifications will be evaluated as follows:</p> <ul style="list-style-type: none"> <li>- Demonstrated experience in at least three similar projects</li> <li>- Academic qualifications necessary to undertake the required service.</li> <li>- Professional affiliation to professional bodies</li> </ul>
3	Compulsory site visit	A compulsory pre-tender site meeting will not be available.
4	Validity	The tender shall be valid for <b>120 days</b> from the submission/closing date. A tender with less than 120 days validity will be deemed non-responsive.
5	Prices	Quoted prices must be in the local currency (Emalangeneni) or ZAR (Rands) and should include all relevant levies and taxes. A filled in bill incorporating the entire tender scope in similar format to the provided template should be provided. The prices should be fixed and firm for the duration of the contract, and where there is foreign currencies involved, forward cover should be catered for.
6	Documents comprising the tender	The documentation required for this tender is found under <b>Company profile and statutory documents</b> section of the tender.



7	Tenderer's request for clarification	The deadline for clarifications shall be one week before the closing date. Clarification can be submitted until the <b>11th November 2019</b>
8	Tender submission	The location for submission of tenders is <b>EEC Main Tender Committee</b> <b>P O Box 258</b> <b>Mbabane</b>  The following information should be considered: <ul style="list-style-type: none"> <li>• The technical and financial proposals should be separated and clearly marked “<b>TECHNICAL</b>” and “<b>FINANCIAL</b>”.</li> <li>• The separate, sealed envelopes of both the financial and technical proposals should then be sent to SEC in a sealed envelope clearly marked “<b>Tender No. 28 of 2019/20: MALOMA T – MALOMA 66KV UPGRADE</b>” and addressed to the “<b>Secretary to the Tender Committee</b>”, <b>Eswatini Electricity Company, Eluvatsini House, Head Office, Mhlambanyatsi Road, Mbabane, Eswatini</b> no later than 1200 hours on 18<sup>th</sup> November 2019.</li> <li>• Document should be submitted with proof of payment of <b>E1000.00</b> for tender documentation.</li> </ul>
9	Tender opening	Tenders will be opened at 12noon on 18 <sup>th</sup> November 2019 at EEC Headquarters, Eluvatsini House, Mhlambanyatsi road, Mbabane
10	Evaluation of tenders	The evaluation criteria is detailed in the <b>Evaluation Methodology</b> section of the tender document.
11	Intention to award	Tenderers will be notified of an intention to award on the same day that the intention is sent to the Eswatini Public Procurement Regulatory Agency (ESPPRA).





## **11.0 CONTRACT TERMS AND CONDITIONS**

- i) The clause headings in this Contract are used for convenience and reference purposes only and shall not be used in the interpretation nor be deemed to modify or amplify the terms of this Agreement or any clause thereof.
- ii) Unless the context clearly indicates a contrary intention, any words importing or connoting any gender includes all genders;
- iii) The singular included the plural or vice versa.
- iv) Natural persons include artificial person and vice versa and shall in the eventuality of a change in the Law in Eswatini to provide for the same, insolvency shall include judicial management;
- v) The following expressions shall bear the meanings assigned to them below and cognate expression shall bear corresponding meanings:

## **12.0 PAYMENT**

- i) When claiming payment, the Supplier shall submit an invoice to EEC. The invoice shall be submitted together with supporting documentation, addressed to EEC.
- ii) EEC shall make payments to the supplier within 30 days of receipt of a valid invoice.
- iii) The payment terms shall be as follows: *as agreed with the successful tenderer.*
- iv) The currency of payment of the Contract shall be in Eswatini Lilangeni.

## **13.0 POSTPONEMENT, VARIATION AND TERMINATION**

- i) Either party may, by written notice to the other party and at any time, give prior notice of his intention to postpone or abandon project, in whole or in part, or terminate this contract.
- ii) The effective date of termination of the project shall not be less than fifteen (15) days after receipt of such notice, or such other longer or shorter period as may be agreed between the Parties.



- iii) Upon receipt of such notice the Consultant shall take immediate steps to bring the Services to a close and reduce expenditure to a minimum.
- iv) Termination of the Contract, for whatever reasons, shall not prejudice or affect the accrued rights or claim and liabilities of either party to this Contract.

#### VARIATION

- i) This agreement can only be varied by agreement in writing entered into by the parties.
- ii) Either one of the parties can initiate negotiations with a view to reach such said agreement.
- iii) Should there be any queries please contact The Commercial Services Manager on these contacts: Mrs Busisiwe Masangane Tel: (+268) 2409 4000/ 4163, Fax: (+268) 2409 4001, Email: [busisiwe.masangane@sec.co.sz](mailto:busisiwe.masangane@sec.co.sz)

#### 14.0 APPLICABLE LAW

This Contract shall be deemed to be concluded in Eswatini and shall accordingly be governed and construed according to the laws for the time being in force in the Kingdom of Eswatini.



**BID SUBMISSION FORM**

*Service provider must provide a signed declaration on its company letterhead in the following format. If the Proposal is being presented by a joint venture or consortium all members must each sign their own declaration.*

[>>>Name of Consultant, Address, and Date>>>]

The Commercial Services Manager  
Eswatini Electricity Company  
Eluvatsini House  
P.O. Box 258  
Mbabane

Dear Sir/Madam

I, the undersigned, offer to provide **MALOMA T – MALOMA 66KV UPGRADE PROJECT** to Eswatini Electricity Company in accordance with your Request for Proposal dated October 2019 and our Proposal.

I hereby submit our Proposal, which displays compliance to the requirements and evaluation criteria. I hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to disqualification.

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the basis of the proposal. My Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if my Proposal is accepted, to supply and install access control system to the assignment on the date to be agreed upon. We understand that the EEC is not bound to accept the lowest or any proposal.

Yours sincerely,

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Email Address: \_\_\_\_\_

Business Address: \_\_\_\_\_



**DECLARATION OF ELIGIBILITY**

*[Service provider must provide a signed declaration on its company letterhead in the following format. If the Proposal is being presented by a joint venture or consortium all members must each sign their own declaration.]*

[>>>Name of Consultant, Address, and Date>>>]

To: **The Commercial Services manager  
Eswatini Electricity Company  
Eluvatsini House  
P.O. Box 258  
Mbabane**

Dear Sir/Madam,

Re Tender Reference: **RFP NO: 28 of 2019/20 MALOMA T – MALOMA 66KV UPGRADE PROJECT**

We hereby declare that: -

- (a) We, have the legal capacity to enter into the contract;
- (b) We are not insolvent, in receivership, bankrupt or being wound up, our affairs are not being administered by a court or a judicial officer, our business activities have not been suspended, and we are not the subject of legal proceedings for any of the foregoing;
- (c) We have fulfilled our obligations to pay taxes and social security contributions;
- (d) We have not, and our directors or officers have not, been convicted of any criminal offence related to our/their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a contract within a period of five years preceding the commencement of the procurement proceedings; and
- (e) We do not have a conflict of interest in relation to the procurement requirement.

Signed.....

Authorised Representation

Date.....



# DRAWINGS:



