

# **TECHNICAL SPECIFICATIONS**

## **1. GENERAL**

Materials included in this tender are for use in electricity distribution networks including (33, 11 & 0.4) kV overhead lines and associated substations.

Tenderer must ensure that materials are of the best quality and confirm to the latest IEC standards.

## **2. Copper Cable Lugs and straight Ferrule**

The required copper cable lugs shall be suitable for connecting the specified copper cables with copper busbar. Copper Cable Lugs and straight Ferrule Must be of compression type (mechanical type is accepted) and shall comply with DIN 46235 or equivalent and the current carrying capacity for lugs shall be suitable with the current carrying capacity for cables as specified in IEC 60287.

Cu cable lugs size 16 mm<sup>2</sup> will be used for 16mm<sup>2</sup> cables with KWH meters so the diameter of screw shall be 8mm.

The diameter of screw for Cu cable lugs size 35mm<sup>2</sup>, 70mm<sup>2</sup>, 120mm<sup>2</sup>, 185mm<sup>2</sup>, 240mm<sup>2</sup>, 300mm<sup>2</sup> shall be 10.5mm, 12.5mm, 12.5mm, 16.5mm, 16.5 mm, 16.5 mm respectively.

## **3. Bimetallic Cable Lugs**

The required Bimetallic (Copper-Aluminum) cable lugs shall be suitable for connecting the specified aluminum cables with copper busbars. They

must be of mechanical type (compression type is accepted) and shall comply with IEC 61238-1 or equivalent, and the current carrying capacity is for lugs shall be suitable with the current carrying capacity for cables as specified in IEC 60287. The mechanical bimetallic cable lugs shall be provided with suitable meter length of cold shrink tape.

#### **4. TESTS:**

The cable lugs shall be tested in accordance to IEC 61238-1, tenderer shall prove the required parameters laid down in the specifications, guaranteed schedules and bidder's offer. Detailed test certificates shall be submitted to EDCO.

#### **5. REFERENCES:**

Bidder must include with his offer a detailed reference list indicating types, quantities, and years of service of the same offer items he supplied as well as detailed address of buyers, particularly these buyers having same climatic conditions in the region.

#### **6. OFFER CATALOGUES AND SAMPLES:**

Each offer should be attached with catalogues with a clear drawing with dimensions and other technical specifications for each type of the offer items.

**A sample of each type should be submitted with the offer and any offer received without drawings and samples will be rejected during evaluation without any prior notice.**

## **SCHEDULES AND GUARANTEES**

<b><u>SCHEDULE NO.</u></b>	<b><u>DESCRIPTION</u></b>
<b>A</b>	<b>Schedule of Requirements</b>
<b>B</b>	<b>Price schedules</b>
<b>C</b>	<b>Guaranteed delivery period schedules</b>
<b>D</b>	<b>Manufacturers, places of manufacture and testing place</b>
<b>E</b>	<b>List of test certificates</b>
<b>F</b>	<b>Reference list</b>
<b>G</b>	<b>Deviation from specifications Schedules if any</b>

**SCHEDULE (A)**

**SCHEDULE OF REQUIREMENTS**

<b>Item No.</b>	<b>Description</b>	<b>Stock Code</b>	<b>Unit Item</b>	<b>Quantity Required</b>
1.	Copper cable lugs for Cu cables with the following sizes: - - 16 mm <sup>2</sup> - 35 mm <sup>2</sup> - 70 mm <sup>2</sup> - 120 mm <sup>2</sup> - 185 mm <sup>2</sup> - 300 mm <sup>2</sup>		No. No. No. No. No. No.	500 1500 4000 500 1000 1500
2.	<b>Bimetallic cable lugs suitable for the following size cable:</b>  - 70 mm <sup>2</sup> - 120 mm <sup>2</sup> - 185 mm <sup>2</sup> -240 mm <sup>2</sup>		No. No. No. No.	1000 4000 500 500

**SCHEDULE (B)**  
**PRICES SCHEDULES**

ITEM NO.	DESCRIPTION	QTY AND UNIT	UNIT PRICE & CURRENCY .....		TOTAL PRICE C & F AQABA JORDAN
			FOB	C & F AQABA	
1.	Copper cable lugs for Cu cables with the following sizes: - - 16 mm <sup>2</sup> - 35 mm <sup>2</sup> - 70 mm <sup>2</sup> - 120 mm <sup>2</sup> - 185 mm <sup>2</sup> - 300 mm <sup>2</sup>	500 1500 4000 500 1000 1500			
2.	Bimetallic cable lugs suitable for the following size cable:  - 70 mm <sup>2</sup> - 120 mm <sup>2</sup> - 185 mm <sup>2</sup> -240 mm <sup>2</sup>	1000 4000 500 500			
<b>TOTAL PRICE (C &amp; F) AQABA</b>					

**IMPORTANT NOTES:**

**1-EDCO HAS THE RIGHT TO ACCEPT PARTIAL OFFERS AND TO AWARD PART OF THE ITEMS OR QUANTITIES WITHOUT ANY LIMIT REGARDLESS CLAUSE (2.3) FROM SECTION III (GENERAL CONDITIONS OF CONTRACT).**

**2- EDCO HAS THE RIGHT TO REJECT ANY OFFER BASED ON EDCO EVALUATION TO THE QUALITY, RELIABILITY AND WELL-KNOWN MANUFACTURERS.**

**SCHEDULE (C)**

**GUARANTEED DELIVERY PERIODS IN WEEKS**

<b>DESCRIPTION</b>	<b>DELIVERY PERIOD FOB-SPECIFY PORT</b>	<b>DELIVERY PERIOD AQABA PORT JORDAN</b>
<p>Copper cable lugs for Cu cables with the following sizes: -</p> <ul style="list-style-type: none"><li>- 16 mm<sup>2</sup></li><li>- 35 mm<sup>2</sup></li><li>- 70 mm<sup>2</sup></li><li>- 120 mm<sup>2</sup></li><li>- 185 mm<sup>2</sup></li><li>- 300 mm<sup>2</sup></li></ul> <p><b>Bimetallic cable lugs suitable for the following size cable:</b></p> <ul style="list-style-type: none"><li>- 70 mm<sup>2</sup></li><li>- 120 mm<sup>2</sup></li><li>- 185 mm<sup>2</sup></li><li>- 240 mm<sup>2</sup></li></ul>		

**The delivery period shall be as short as possible, and it will be considered during evaluation.**

**SCHEDULE (D)**  
**MANUFACTURERS, PLACES OF MANUFACTURE AND TESTING**  
**PLACE**

DESCRIPTION	MANUFACTURER	PLACE OF MANUFACTURE	PLACE OF TESTING
<p>Copper cable lugs for Cu cables with the following sizes: -</p> <ul style="list-style-type: none"> <li>- 16 mm<sup>2</sup></li> <li>- 35 mm<sup>2</sup></li> <li>- 70 mm<sup>2</sup></li> <li>- 120 mm<sup>2</sup></li> <li>- 185 mm<sup>2</sup></li> <li>- 300 mm<sup>2</sup></li> </ul> <p><b>Bimetallic cable lugs suitable for the following size cable:</b></p> <ul style="list-style-type: none"> <li>- 70 mm<sup>2</sup></li> <li>- 120 mm<sup>2</sup></li> <li>- 185 mm<sup>2</sup></li> <li>- 240 mm<sup>2</sup></li> </ul>			

## **SCHEDULE (E)**

### **LIST OF TEST CERTIFICATES FOR TESTED EQUIPMENT**

Tenderers shall provide the information required below for the type test certificates from a recognized testing station covering the equipment offered to BS or IEC recommendations & shall be submitted with the tender.

Failure to provide copies of type test certificates/reports could result in rejection of the tender.

<b>Type test made on identical designs of equipment to those offered</b>	<b>Certificate No.</b>	<b>Certificate Authority</b>

**SCHEDULE (F)**

**SERVICE EXPERIENCE OF FOR OFFERED MATERIALS**

Tenderers shall provide the information required below for the service experience of the same offered materials.

<b>Customer</b>	<b>Description</b>	<b>Total Quantity (Pc.)</b>	<b>No. of years in service</b>

**SCHEDULE (G)**

**DEVIATIONS FROM SPECIFICATIONS (IF ANY)**  
**TO BE COMPLETED BY THE TENDERER**

<b>ITEM NO.</b>	<b>BREIF DESCRIPTION</b>	<b>DEVIATIONS</b>