RURAL ELECTRIFICATION FUND



BIDDING DOCUMENT FOR THE SUPPLY AND DELIVERY OF DISC INSULATORS AND IRON D-3.5 SHACKLE TYPE

DOMESTIC COMPETITIVE TENDER

TENDER NUMBER: REF/DOM/19/05/2022

CLOSING DATE: 28 JUNE 2022

CLOSING TIME: 1000HOURS

DATE OF ADVERT 27 MAY 2022

NON-REFUNDABLE TENDER FEE: FREE

SUBMISSION OF BIDS/TENDERS

All bids/tenders must be deposited in the Tender Box located at:

Rural Electrification Fund Room 713 7th Floor, Megawatt House 44 Samora Machel Avenue HARARE ZIMBABWE

RURAL ELECTRIFICATION FUND



<u>DECLARATION BY THE ACCOUNTING OFFICER IN TERMS OF SECTION 19(2)(C) OF THE PUBLIC PROCUREMENT AND DISPOSAL OF PUBLIC ASSETS REGULATIONS, 2018.</u>

TENDER NUMBER: REF/DOM/19/05/2022

TENDER DESCRIPTION- SUPPLY AND DELIVERY OF DISC INSULATORS AND IRON D-3.5

SHACKLE TYPE

DECLARATION

The procurement for the tendered goods/items is based on neutral and fair technical requirements and bidder qualifications.

<u>Signed</u>			
J.V MASH	IAMBA	•••••	•••
CHIEF EX	(ECUTI	VE OF	FICER

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1.0 SCOPE OF SUPPLIES

This document is a Bidding Document (BD) for the Supply and Delivery of the following items:

Lot No	Material Description	Unit of Measure	QUANTITY
1	INSUL. DISC PORCELAIN 10DIA 1000016	Each	3,500
2	DISC INSULATOR 11KV POLYMERIC	EACH	7,500
3	DISC INSULATOR 33KV POLYMERIC	EACH	7,500
4	IRON D-3.5SHACKLE TYPE INSUL. DWG NO D20	EACH	2000

2.0. TERMS AND CONDITIONS TO BE OBSERVED IN TENDERING

2.1 Terms and conditions

The tender and any contract shall be governed by the Public Procurement and Disposal of Public Assets Act (Cap 22:23) and the Public Procurement and Disposal of Public Regulations, 2018 (PPDPA). Orders will be placed by and/or contracts entered into by and between the Rural Electrification Fund(REF) and the successful bidder after approval of the tender in whole or in part by Rural Electrification Fund (REF). REF shall not accept any liability for any order/contract(s) which does not bear the authentic signature of anyone of the authorized signatories at the time of placement of the order/contract. The authorized signatories are the Executive Director Finance, and the Chief Executive.

The Tenderer must acquaint himself/herself with the "Terms and conditions to be observed in tendering". The Purchaser shall not be responsible for any misunderstanding of incorrect information however obtained except information given in writing by the Purchaser.

2.2 Cost of Tender

Bidders shall bear all costs associated with the preparation and submission of their bids.

REF will be not responsible or liable for any such costs incurred by the bidders, regardless of the outcome of the Tender Process.

2.3 Tender Documents

Suppliers are expected to examine carefully the whole tender document. Failure to furnish all the information required in the bid document or submission of Tender not substantially responsive to the said document in every respect will be at the Supplier's risk and will result in the rejection of the bid.

2.4 <u>Tender Queries and Clarifications</u>

All queries regarding the tender shall be forwarded by the bidder in writing on duly signed company letterhead and emailed on the following email address: kchinembiri@rea.co.zw, tshumba@rea.co.zw and buyer1@rea.co.zw, not less than five(5) days working days from the closing date of the tender. Clarifications/Responses pertaining to the queries received shall be uploaded on REF website address www.rea.co.zw on the notice board page. It shall be the responsibility of bidders to continuously check the website for such clarifications/quiry responses.

If a prospective tenderer sends a query less than the stated days above, the query may not be responded. Any neglect, delay or failure on the part of the Tenderer to obtain additional information on the above or any other matters, which the tenderer considers necessary, shall not relieve him/her from responsibility as a Tenderer. Only bidders facing challenges in receiving responses to their quiries may call the Procurement Administrator on 0719 409 691.

2.5 <u>Tender Responses</u>

Suppliers wishing to respond to the tender must submit three (3) copies of their responses, deposit a sealed envelope in the Tender Box situated at:

Rural Electrification Fund Room 713 7th Floor, Megawatt House 44 Samora Machel Avenue Harare Zimbabwe

By not later than 10.00am on the advertised closing date. Prospective suppliers may attend the opening of tender at Megawatt House, 7^{th} Floor on the above closing date and time.

2.6 Amendment of Tender Documents

At any time prior to the deadline for the submission of the tenders, Rural Electrification Fund may for any reason whether at its own initiative or response to a clarification requested by a prospective supplier modify the tender document by amendment(s). Such amendment(s) will be uploaded on REF website as stated on clause 2.4 of the bidding document.

In order to afford the supplier reasonable time in which to take the amendment(s) into account in preparing their tenders, Rural Electrification Fund may, extend the deadline for submission of tenders.

2.7 Language

The tenders and all relevant correspondence and documents exchanged between the Seller and Purchaser shall be written in English language.

2.8 <u>Tender Validity Period</u>

Tender validity period is the **period** in course of which the supplier is bound by the **tender**, in relation to its content and conditions offered (price, execution time, guarantee, etc). Tender prices shall remain valid and fixed for a minimum of sixty (60) days period after the deadline from the date of submission of the tender. Bidders must state clearly in writing the price validity of their bid document.

2.9 Payment Terms and Conditions

Rural Electrification Fund shall pay the winning bidder in local currency only within 21 days after delivery, inspection and acceptance of the delivered goods. Any other payment terms and conditions resulting in Rural Electrification Fund paying a deposit or advancing payment such bidders must state ability to secure a bank guarantee from a registered commercial bank acceptable to REF equal to the amount to be advanced. The bank guarantee must be provided within two weeks of contract signing.

Bidders are therefore requested to clearly state payment terms and conditions in the bid document.

2.10 Errors of Extension or addition

The Rural Electrification Fund reserves the right to adjust arithmetical in the bid total price. Any adjustments made by the Rural Electrification Fund to a bid total price will be stated to the bidder prior to the acceptance of the bid, and will be made on the basis that the unit price is taken as correct and all extensions and additions will be adjusted accordingly. In such cases the effect will be that the total amount of the bid will be altered so that this amount agrees with the amount arrived at after the errors of extension or additions have been corrected

2.11 Penalties/Liquidated damages

The purchaser shall without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, sum equivalent to 0.5% of contract price of the delayed goods for each week of delay until actual delivery, up to a maximum of 10% of the tender sum.

2.12 Delivery Period

The successful bidder is expected to deliver the goods within the delivery period stated in the bid document from the date of the Purchase Order. The delivery period must be stated in weeks. In the event that goods will be delivered in different consignments, delivery schedule must be provided together with the bid. The delivery address is as follows: Rural Electrification Fund Central Stores No.22A James Martin Road, Lochinvar Harare Zimbabwe.

REF reserves the right to reject the right to reject any deliveries or items that do not meet the specifications provided in this tender.

2.13 Company Profile

The company profile to include financial details such as Banking Institution Name; Bank Key: Branch; Town/City; Bank Account Number; Type of Account; Account Holder Name; and Sort/Swift Code. VAT registered companies to provide vat number. Provide full name of a person who is authorized to sign for and behalf of the company, cell phone number, email and physical address.

2.14 <u>Bid Preparation</u>

The bid shall be typewritten. Handwritten bids will not be accepted and will be rejected. Bids must be properly spirally bound. A clearly labeled table of contents with correct page numbers or index must be provided on the second page of the bid document. Company name, tender number, tender description, closing date must be displayed on the cover page of the bid document.

2.15 Bid Bond Security

Bidders must submit a refundable Bid Security of ZW\$250,000.00, valid for 60 Days, together with their bid in line with Statutory Instrument(S.I)05 of 2018. The Bid Security shall be payable using the below Options:

Option 1	A certified Bank Cheque
Option 2	•
Option 3	A Cash Deposit to the PRAZ

If Option 3 is chosen bidders must also submit proof of payment to Procurement Regulatory Authority of Zimbabwe (PRAZ) of non-refundable cash bid bond establishment fee equivalent to ZW\$28,000.00(Local bidders) and USD350.00 (Foreign Bidders) in line with Part V of the Statutory Instrument(S.I) 299 of 2021. Failure to comply with the above will lead to automatic disqualification.

2.16 Contract Administration Fee Payable by the Contractors

Bidders are advised that the winning bidder may be required to pay contract administration fees to PRAZ in line with Statutory Instrument (S.I) 299 of 2021 PART VI. Bidders must ensure they study the fees structure on the S.I for their information.

2.17 Companies owned by same person

No bidder may submit more than one bid, either individually or as a joint venture partner in another bid, except as a subcontractor and a conflict of interest will be deemed to arise if bids are received from more than one bidder owned, directly or indirectly, by the same person.

3 EVALUATION CRITERIA

The evaluation criteria of the tender shall include the below listed requirements. Bidders who fail to comply with any of the clauses below shall be disqualified from the tender(subject to provisions of the PPDPA) as their bid will not be compliant.

- 3.1 Compliance to technical specifications-Bidders must comply with the technical specifications requirements/instructions provided.
- 3.2 Bidders must attach the following company documents without fail:
 - A Certificate of Incorporation in terms of the Companies Act (Chapter 24.03).
 - or equivalent registration document in country of residence.
 - CR14- indicating names and addresses of the directors and their shareholding Structure.
 - CR 6 Form -principal place of business
 - Proof of registration with Zimbabwe Revenue Authority (ZIMRA) in the form of a valid current tax clearance certificate ITF 263 and VAT registered companies in addition to submit VAT Certificate.
- 3.3 Pricing format-Bidders shall use the following pricing format without fail. Failure to use the correct pricing format may lead to rejection of the bid

LOT No	ITEM DESCRIPTION	дту	Unit price USD\$ VAT Exclusive	VAT USD\$	Total price USD VAT Incl
1	xxxxxxxxxxxxxxxxxx	XXX			
2	xxxxxxxxxxxxxxxxxxx	XXX			
3	xxxxxxxxxxxxxxxxxx	XXX			

IMPORTANT PRICING NOTES

- Payment shall be strictly in local currency at the prevailing exchange rate using the RBZ exchange rate(mid-rate). See http://www.rbz.co.zw/.
- The prevailing RBZ exchange rate(mid-rate) on the date of tender closing shall shall be used as the base rate where necessary.
- The bid price should clearly and separately show the unit price and the total price.
- The USD prices shall be used for purposes of tender evaluation and tender award.
- Bidders MUST state clearly whether they charge VAT or not.
- 3.4 Bidders must state whether the goods shall be imported or are locally

- manufactured without fail.
- 3.5 Bidders must state the required payment terms. REF favors payment after delivery, however where bidders require pre-delivery payment they must state ability to secure a bank guarantee from a registered commercial bank acceptable to REF equal to the amount to be advanced. The bank guarantee must be provided within two weeks of contract signing.
- 3.6 REF shall pay the winning bidder through local banks transfer. Bidders must provide their local bank account details without fail.
- 3.7 Delivery term shall be DDP (2000)-that means the bid price must be inclusive of import duties and taxes and transit insurance(risk) until delivery at the stated point of delivery-Importing bidders MUST state that the delivery term shall be DDP(2000).
- 3.8 Bidders must be registered with the Procurement Regulatory Authority of Zimbabwe(PRAZ)- Bidders must attach proof of registration with PRAZ on the list for supply of electricals/hardware.
- 3.9 Letter of agency-Importers must attach a letter of agency from the Manufacturer without fail.
- 3.10 Valid ISO/SAZ certificate of the manufacturer of the quoted lot must be attached with the bid documents -Bidders must attach proof without fail.
- 3.11 Bidders who do not hold the items ex-stock must clearly state in their bids that they have checked that the goods tendered "fall" or "do not fall" under the Consignment Based Conformity Assessment (CBCA) programme as required by the Government of Zimbabwe. If the goods tendered "fall" under the CBCA programme, bidders must further state that all costs associated with this requirement will be to the supplier's account. Bidders who hold the items ex stock do not need to comply with this criteria
- 3.12 Delivery period. REF requires the winning bidder (bidders without ex-stock) to supply the full order within a period of six (6) weeks from the date of contract signing/order. However where the tender is awarded to bidders who hold the items ex-stock, such winning bidders must deliver within five(5) days from the date of purchase order issuance/contract signing. Bidders must state their capacity to deliver within a period of four(4) weeks or five(5) days whichever is applicable.
- 3.13 Reference letters-Bidders must attach at least two reference letters from companies where the bidder has supplied line construction materials in the past three years.
- 3.14 Bidders must state a warranty period of 12 months for the supplied items.
- 3.15 Bidders are allowed to bid for part quantity or the full quantity.
- 3.16 Bid bond compliance-Bidders must attach proof of bid bod compliance as per clause 2.15 of the RFP without fail.
- 3.17 Bid validity of a minimum of 60 days is required and must be clearly stated.
- 3.18 Tenders must be submitted in three (3) copies and the ORIGINAL" copy must be clearly marked.
- 3.19 The Bidders must submit the bid with a duly filled in and signed Declaration on Non-Engagement in Corrupt or Fraudulent Practices Form Annexure 2.

3.20 The bidder must submit with the bid a duly filled in and signed attached Form of Tender Annexure 3.

4.0 FINANCIAL INFORMATION

All prices must be inclusive of delivery costs and any other duties and taxes payable by the supplier. The delivery address is Rural Electrification Fund (REF) Central Stores No.22A James Martin Road Lochinvar Harare, Zimbabwe. REF does not assist suppliers in the sourcing of foreign currency. All VAT registered supplier must show VAT separately in their bid.

5.0 TENDER AWARD CRITERIA

REF intends to award the tender to the lowest priced bidder to specification who hold the tendered items <u>ex-stock</u>. Where a winning bidder holds less-than the tender quantity ex-stock, REF may award the tender to more than one bidders who hold the items ex-stock until the tender quantity is fulfilled.

Bidders who hold the items ex-stock must state that they hold the goods ex stock without fail and the quantity held in stock.

REF reserves the right to visit bidders and inspect the items stated as EX-STOCK and findings by the visiting team shall be used for evaluation of this tender. NB: BIDDERS WHO FALSELY CLAIM TO HOLD STOCK SHALL BE DISQUALIFIED FROM THE TENDER PROCESS. Bidders are allowed to quote for the full or part tender quantity.

However REF may award the tender the tender to bidders who do not hold stock under the following conditions:

- Where non of the bidders hold the goods ex stock.
- Where the bidders who hold the goods in stock have quoted unreasonably high prices.
- When the bidders who hold stock are non-compliant to the tender requirements.

6.0 CONTACTING THE PURCHASER

Any effort by the bidder to influence REF in the tender evaluation, tender comparison, and contract award or order placement decisions will result in the rejection of the bidder's bid.

7.0 **CONFIDENTIALITY**

After the public opening of tenders, information relating to the examination, clarification, evaluation and comparison of tenders and recommendations concerning the award of the contract shall not be disclosed to bidders or other persons not officially concerned with such process until the award of contract is announced. No bidder shall contact the Purchaser on any matter relating to this tender, from the time of the tender opening to the time the tender is awarded. Any bidder in possession of confidential tender information will be obliged to reveal the source of information and/or face disqualification of his/her tender.

8.0 CORRUPT OR FRAUDULENT PRACTICES

Rural Electrification Fund requires that Tenderers observe the highest standard of ethics during the procurement process and execution of contracts. A tenderer shall sign and submit together with the bid the attached form (Annexure 2), that states that she/he has not or will not be involved in corrupt or fraudulent practices.

Rural Electrification Fund will reject a proposal for award if it determines that the tenderer has engaged in corrupt of fraudulent practices in competing for the contract. A Tenderer who is found to have indulged in corrupt or fraudulent practices will be automatically disqualified.

9.0 SUBMISSION OF BIDS

- 9.1 The tender must be enclosed in sealed envelopes, endorsed on the outside with the advertised tender number, the closing date and description of tender and must be send by courier in time to be deposited or deposited in the Tender Box situated at, Rural Electrification Fund, Room 713 7th Floor Megawatt House, 44 Samora Machel Avenue, Harare, before 10.00 hours on the closing date notified.
- 9.2 Tenders which are properly addressed to the Procurement Administrator in envelopes with the advertised tender number, the closing date and tender description endorsed on the outside are not opened until 1000 hours on the closing date.
- 9.3 **Note:** Tenders which are not received by 1000 hours on the closing date whether by hand or by courier will be treated as late tenders and will be rejected.
- 9.4 Tele-fax and e-mail bids are not accepted i.e. electronic bidding is not accepted.

- 9.5 Any tender submitted that does not fully comply with the above terms and conditions will be rejected without further consideration as will tenders received after the published closing date.
- 9.6 Bidders are required to adhere to the instructions regarding preparation and submission of tenders as those who do not comply will be disqualified.
- 9.7 Tenderers are free to attend and witness the public tender opening at the above captioned address. The opening ceremony shall be done on the tender closing date soon after the closing time.

10.0 RIGHT FOR ACCEPTANCE OR REJECTION OF ANY OR ALL BIDS

The Fund reserves the right to accept the whole or part of the tender. The Fund reserves the right to accept or reject any bid and to annul tendering process and reject all bids at any time prior to award of contract/order, without incurring any liability to the affected Tenderer(s) or obligations to inform the affected Tenderer(s).

11) TECHNICAL SPECIFICATIONS

Bidders must study the instructions provided in the table below. The instructions pertain to each lot. Bidders must comply with the instructions per Lot without fail.

TABLE OF REQUIREMENTS

LOT	DESCRIPTION	INSTRUCTION TO BIDDERS PER LOT.BIDDERS
NO		MUST STRICTLY COMPLY WITH THE
		INSTRUCTIONS PROVIDED BELOW PER LOT.
		BIDS THAT ARE NON COMPLIANT TO THESE
		INSTRUCTIONS WILL BE REJECTED.
1	INSUL. DISC PORCELAIN 10DIA 1000016	Specifications attached.Bidders must
		complete the technical guarantee schedule
		without fail.
2	DISC INSULATOR 11KV POLYMERIC	Samples available for viewing at REF Central
		Stores.
3	DISC INSULATOR 33KV POLYMERIC	Samples available for viewing at REF Central
		Stores.
4		Samples available for viewing at REF Central
		Stores.
	IRON D-3.5SHACKLE TYPE INSUL. DWG NO D20	

A. TECHNICAL SPECIFICATIONS DISC INSULATORS PORCELAIN CLEVIS AND TONGUE

Table of Requirements:

Item	Description	UNIT	QUANTITY
1.	Disc Insulators Porcelain clevis and tongue 70KN Sample	EACH	12 500
	available at REA Central Stores No. 22A JAMES		
	MARTIN AVENUE LOCHNIVAR Harare Zimbabwe		

SPECIFICATION FOR INSULATORS

1.0 **SCOPE**

This specification covers the manufacture, testing, supply and delivery of insulators.

2.0Standards

All insulator types shall comply with the latest edition of the relevant IEC publication or British Standards where they amplify IEC. The reference standards shall be stated in the Technical Schedules appended to these Specifications.

2.1Relevant IEC Standards are:

- a)IEC Publ. 60 -High voltage testing techniques
- b) IEC Publ. 168-Tests on indoor and outdoor post insulators
- c) IEC Publ. 305-Characteristics of string insulator units of the cap and pin type.
- d) IEC Publ. 383-Tests on insulators of ceramic material or glass for overhead lines with nominal voltage greater than 1000V.
- e) IEC Publ. 383-Radio interference test on high voltage insulators
- f) IEC Publ. 575-Thermal-mechanical performance test and mechanical performance test on string insulator units.
- g)IEC Publ. 672-Specification for ceramic and glass insulating materials
- h)IEC Publ. 720-Characteristics of line post insulators
- i) IEC Publ. 797-Residual strength of string insulator units of glass or ceramic material for overhead lines after mechanical damage of the dielectric.
- j) ISO/R 1101/1, 1969 -Tolerances of form and position. Part I: Generalities, symbols indication on Drawing
 The insulators shall be provided from companies who have ISO 9001/2

certification. Proof of ISO certification shall be submitted with the bid.

3.0 Marking of Insulators

Each insulator shall have marked upon it the manufacturer's name or trade mark, the date of manufacture or firing, and indication of the guaranteed electro-mechanical strength and other such marks as may be required to denote each batch for the purpose of sample tests.

Unless otherwise approved the insulators submitted, as a batch for a test shall bear the same marks. These marks shall be imprinted and not impressed. For porcelain, the marks shall be imprinted before glazing. When a batch of insulators bearing a certain identification mark has been rejected no further insulators bearing this mark shall be submitted and the Contractor shall satisfy the Agency that adequate steps will be taken to mark or segregate the insulators constituting the rejected batch in such a way that there shall be no possibility of the insulators being re-submitted for test or supplied for the use of the Authority.

4.0General Design

All insulators types shall be brown glazed porcelain of a sound quality, free from defects and thoroughly vitrified so that the glaze is not depended upon for insulation. The glaze shall be smooth, hard of a uniform shade of brown and shall cover the entire exposed part of the insulator. The insulators shall be unaffected by atmospheric conditions due to weather, fumes, ozone's, acids, alkalis, dust or rapid changes of temperature between minus 10^{0} C and plus 50^{0} C under working conditions.

The porcelain shall not engage directly with hard metal and, where necessary, an approved resilient material shall be interposed between porcelain and end fittings. All fixing material used shall be of approved quality and shall not enter into chemical action with the metal parts or cause fracture by expansion during service. Where cement is used as a fixing medium, the thickness of cement shall be as small and even as possible and proper care shall be taken to center and locate the individual parts correctly during cementing.

All insulators shall comply with technical requirements listed in table 1. The insulators shall have a design life of at least 40 years when operating under the specified conditions (1.1 and 1.2) This shall be verified through accelerated life cycle tests.

The total creepage distance and the protected creepage distance over the external surface of the insulators shall not be less than the minimum values specified. The protected creepage distance refers to that part of the insulators which is protected against rain at right angles to the axis of the insulator.

The design of insulators and fittings shall be such as to avoid local corona formation and no significant radio interference shall be exhibited. The insulator units conform to the

electrical and mechanical design criteria stated in the technical tables in this Specification.

Wherever galvanising is specified, the galvanising shall be by the hot dip process with a minimum zinc layer of 610g/m². The insulators shall be as per attached drawings.

5.0Disc Insulators

The disc insulators shall be of the Clevis and Tongue and unless otherwise specified in the Schedule of Requirements be fitted with tongue and clevis supplied complete with stainless steel pin, washer and split pin for the clevis.

Cap and clevis shall be made of malleable cast iron, spheroidal graphite cast iron or forged steel. The graphite in malleable cast iron shall only appear in the form of temper carbon and the graphite cast iron shall only be present in spheroidal form.

The tongue shall be made of forged steel. In tensile tests the tongue shall exhibit ductile fractures characterized by a considerable contraction of area.

Cap, clevis and tongue shall be hot-dip galvanised.

The verification of dimensional requirements of the insulator units shall be as stated below. Insulating part, cap and pin shall be concentrically assembled using Portland cement or aluminous cement.

When gripping the insulator between a tongue (dummy) and clevis end (dummy), the radial run-out of the insulating part shall not exceed 3% of the nominal insulator diameter.

With the same arrangement, the axial run-out of the insulating part shall not exceed 4% of the nominal insulator diameter. The axial run-out shall be measured at the periphery of the insulating part. For definitions, see ISO/R 1101/1, 1969.

Assembly shall be performed in such a way that the mechanical properties cannot be affected by the zinc and to ensure that the insulating part is not subject to any mechanical stress due to pressure exerted by the bottom edge of the cap.

Free surface of insulating parts shall be cleaned from cement and other impurities. The verification of the locking system shall be performed in accordance with IEC 383.

6.0Testing

The Supplier shall submit type test reports with the bid for insulator.

The type reports shall be certified by an international reputable test institute or laboratory. If the Supplier fails to submit such test report, the bid is liable to be rejected.

The Supplier shall keep the Agency informed on the progress of manufacture of materials and works, so that the inspection and sample tests can be performed in the presence of the Agency's Engineers.

Before every inspection and test supervised by the Agency, the Supplier shall satisfy himself that the work is in all respects in accordance with the specification ready for inspection and testing.

Full and complete sample tests of all components shall be carried out to the satisfaction of the Agency.

The manufacturer shall carry out at his own expense the routine tests specified in IEC-383. The routine tests load shall be 50% of the electromechanical or mechanical failing load.

Electromechanical or mechanical failing load test shall be performed in accordance with IEC 383, amended as follows: The test load shall be increased from an initial value which is equal to about 75% of the specified minimum failing load to a rate of 15 to 30% of this failing load per minute. In the electromechanical failing load test, it is required that puncture shall not occur before mechanical breakdown. Before the electromechanical failing load or mechanical failing load test, the insulators shall have passed the temperature cycle test specified in IEC 383.

Residual strength test in accordance with IEC 797 shall be performed on insulators with a shattered insulating part. The failing load shall be at least 65% of the value obtained at the electromechanical or mechanical failing load test. The bidder shall provide details of accelerated life cycle tests carried out on the insulators. Type test certificates shall be submitted for any tests carried out.

7.0 **Packing**

Insulator units shall be packed in crates.

The crates shall be packed on pallets and each pallet shall contain 20 crates.

The packing shall afford adequate protection for the insulators during ordinary handling and shipping.

The Contractor shall make sure that split-pins operate properly and that they are placed in locking position.

Each package shall be marked with the type designation used by the manufacturer.

8.0DISC INSULATORS FOR 33 AND 11KV SYSTEM

ITEM	UNIT	VALUE
TOTAL CREEP AGE DISTANCE	MM	320
COMBINED ELECTRO-MECHANICAL	KN	70
STRENGTH		
POWER FREQUENCY FLASHOVER VOLTAGE-	KV	75
DRY		
POWER FREQUENCY FLASHOVER VOLTAGES-	KV	45
WET		
IMPULSE FLASHOVER VOLTAGE – POSITIVE	KVP	115
IMPULSE FLASHOVER VOLTAGE – NEGATIVE	KVP	120
IMPULSE WITHSTAND VOLTAGE – POSITIVE	KVP	110
IMPULSE WITHSTAND VOLTAGE – NEGATIVE	KVP	115
POWER FREQUENCY PUNCTURE VOLTAGE	KV	110
ONE MINUTE POWER FREQUENCY	KV	70
WITHSTAND VOLTAGE – DRY		
ONE MINUTE POWER FREQUENCY	KV	40
WITHSTAND VOLTAGE – WET		
MAXIMUM WEIGHT	KG	7.5

8.1TECHNICAL GUARANTEE SCHEDULES TO BE COMPLETED BY SUPPLIER

Disc Insulators

Country of origin			
Manufacturer			
Material Type			
Creepage Distance	Total Creepage	mm	
	Protected Creepage (90°)		
Combined Electro Me	echanical Strength		
Flashover	Power	Dry	
Voltage	Frequency	kV	
		Wet	
		kV	
	Impulse	Positive	
		kVp	
		Negative	
		kVp	
Withstand Voltage	One Minute	Dry	
	Power frequency	kV	
		Wet	
		kV	
	Impulse	Positive	
		kVp	
		Negative	
D E D	4 37 14	kVp	
Power Frequency Pur kV	icture Voltage		
Type of Disc			
Weight			
Kg			

Annexure 1

DECLARATION ON NON-ENGAGEMENT IN CORRUPT OR FRAUDULENT PRACTICES FORM

The Chief Executive Rural Electrification Fund 6th Floor Megawatt House 44 Samora Machel Ave P. Bag A250,Avondale Harare Zimbabwe

	R NUMBER: R DESCRIPTION: _						
the	undersigned	(Director	•	Company) me of Organisa			of clare
	ur organization h the subsistence o		engaged	, ,	, ,	•	
	in Full						
	umber						
_	ure						
Date _							

Annexure 2

LETTER OF TENDER (TENDER FORM)

NAME	OF TENDER:	Supply & Delivery of various line materials
Tende	er Number REF/	INTER//2022
TO:	The Chief Exec Rural Electrific 6 th Megawatt H 44 Samora Mac Harare, Zimbabwe	ation Fund (REF) ouse,
Contra We had the at exami contact complement of the acceptorms of the Tacked Unless togethe between the Unless togethe the Unless together the University of t	actor/Supplier for ave examined the tached. Appendined, understoom in no errors or lete the Works includes all the from the tender of this Let is offer is accordence the Works and complete to and complete to and until a form the with your veen us. Our Tenderstand that your enterstand that your entersta	epted, we will provide the specified Performance Security, as soon as is reasonably practicable after the Commencement he Works in accordance with the above-named documents within etion. We guarantee that the Works will then conform to the es. mal Agreement is prepared and executed, this Letter of Tender, written acceptance thereof, shall constitute a binding contract der is binding upon us and subject to the modifications resulting act negotiations. you are not bound to accept the lowest or any tender you may in the capacity of no tenders for and on behalf of no tenders for any tender you may no tender you ma
Addre Date:	· · · · · · · · · · · · · · · · · · ·	