**ZIMBABWE ELECTRICITY TRANSMISSION AND DISTRIBUTION COMPANY**



**ZETDC**

**DISTRIBUTION DEPARTMENT**

**NORTHERN REGION**

**ZETDC SPECIFICATION FOR**

**RECHARGEABLE TORCHES: IP54/IP65 RATED**

**1              SCOPE.**

* This specification covers the supply and delivery of rechargeable torches, IP54/IP65 rated
* The Supplier shall state name, place and country of manufacture.
* The Supplier shall state whether or not the rechargeable torches are produced under license, in which case licence holders name shall be stated.
* Tenders shall include a complete statement of compliance with this specification and the Technical Guarantee Schedule shall be completed. For every clause in this specification the Tenderer shall state compliance or non-compliance and shall elaborate where appropriate.
1. **DETERMINATION OF RESPONSIVENESS**

Prior to the detailed evaluation of Tenders, ZETDC will determine whether each Tender is substantially responsive to the requirements of the Tender Document.

For the purpose of this clause, a substantially responsive Tender is one which will conform to all the terms, conditions and specifications of the Tender Document without material deviations or reservations. A material deviation or reservation is one which affects in a substantial way the price, scope, quality, completion, timing or administration of the works undertaken by the Tenderer under the Contract, or which limits in a substantial way, inconsistent with the Tender Document, the Zimbabwe Electricity Transmission and Distribution Company’s rights or the Tenderer’s obligations under the Contract and the rectification of which would affect unfairly the competitive position of other Tenders who have presented substantially responsive Tenders at reasonable price.

A Tender determined to be substantially non-responsive will be rejected by the Authority and may not subsequently be made responsive by the Tenderer by correction of the non-conformity.

The Zimbabwe Electricity Supply Authority may accept any non-material deviation or reservation provided that the acceptance thereof does not prejudice or affect the relative ranking order of any tender in the evaluation of Tenders.

1. **PARTICULARS OF THE ELECTRICAL SYSTEM AND USE**

Unless otherwise specified in the Schedule of Requirements, it must be assumed that the electrical system in which the Rechargeable Torches will be used is;

1. Overhead and underground works.
2. The highest system voltage does not normally exceed the nominal system voltage by more than 10%. The nominal system voltages are 33 kV and 11 kV with system frequency variation not exceeding plus or minus 2.5% from 50 Hz.

The Rechargeable Torches will be used for:

1. Working of electrical artisans and linesmen on general duty on ZESA network; installation and overhead maintenance and also for service to outdoor transformers and other similar jobs during dark and night hours.

and can also be used for:

1. Any works where there is poor lighting and there is need to enhance the lighting.

1. **PARTICULARS OF THE ENVIRONMENT**

The rechargeable torches will be used in Zimbabwe and should be able to fully function under the Zimbabwe weather conditions.

The rechargeable torches design and material shall be capable of functioning well under the following environmental conditions.

1. a) **Ambient temperatures:**

(i)            Maximum:                          40 °C

(ii)           Minimum:                           minus 10 °C

(iii)          Maximum daily average: 35 °C

1. b) **Altitude:**

Maximum altitude of 1 500 metres above sea level.  The design shall allow for reduced cooling effect due to high altitude.

1. c) **Humidity:**

Humidity of 13mg per cubic metre absolute and 65% relative before storms with   vapour pressure of 17mmHg.

*It is the supplier’s responsibility to make himself familiar with any other climatic and physical conditions pertaining in Zimbabwe and to supply earth sets which meet all such conditions.*

1. **LANGUAGE, UNITS AND STANDARDS**

All tenders, correspondence, description upon drawings, illustrations or instructions shall be in unambiguous English Language. SI Units of measurements shall be used throughout.

Except where modified by ZETDC’s Specifications, European standards Recommendations (EN358:2000) shall apply throughout or British Standards (BS) where they amplify the EN358:2000. In the case of conflict between the above stated Standards and this Specification, the ruling of this Specification shall prevail.

1. **DEFINITIONS**

Throughout this document, the following terms shall be used in the manner defined below:

***May       – indicates*** the existence of an option

***Shall      –****indicates* that a statement is mandatory

***Should* –**indicates a recommendation

1. **THE RECHARGEABLE TORCHES SHALL HAVE THE FOLLOWING DESIGN FEATURES:**
* Rechargeable LED light
* At least 500 Lumens output
* At least 500-meter light beam
* IP 54 / IP65 rated- Water and dust ingress resistant
* Shock Resistant
* AC charging
* USB Charging
* Able to operate on adjusted power modes, at least full beam, half beam and emergency mode
* Able to operate for at least 5 hours on half and full power modes
* Should fully charge by at most 15hours or less
* Minimum of 3V 4000mAh
* Maximum weight of 1000g
* Strap and handle
* Packaging – each rechargeable torch shall be supplied in moisture proof material

1. **Manuals and other Accessories**

The following manuals and toolkit shall be supplied at time of delivery:

1. **Moisture Proof packaging**
2. **Manual and operator’s guide containing the following information**:
* The name of the manufacturer;
* Where appropriate, the name and address of the supplier or such other information as enables the supplier to be traced;
* A statement of the purposes and limitations of the product;
* A warning against making any alterations or additions to the product:
* General warnings and dangers in the use of the product
* Storage instructions
* Instructions for cleaning and maintenance
1. **Warranty**

A minimum one-year warranty shall be provided on all manufacturers’ equipment.

**4              TECHNICAL GUARANTEE SCHEDULE**

Please complete this schedule by ticking where requirement is met or stating the actual tendered Rechargeable LED torches specification in the column labelled Actual

|  |  |  |
| --- | --- | --- |
| **Particular** | **Requirement** | **Actual** |
| 1.       Light Output | a.       LED |   |
| b.       Minimum of 500m beam distance |   |
| c.       Adjustable power modes:  |   |
| 2.       Battery | a.       Rechargeable Lithium ion or Li-ion |   |
| b.       Minimum 3V |   |
| c.       Minimum 4000mAh |   |
| d.       Duration to fully charge-15hours or less |   |
| e.       Supports USB/AC  Recharging |   |
| 3.       Weight | Shall not exceed 1000g |   |
| 4.       Packaging | Moisture proof packaging |   |
| 5.       Resistance | a.       Shock Resistance: Minimum 1.5m |   |
| b.       Water ingress resistance |   |
| 6.       Design& Construction | a.       Portable handle |   |
| b.       Hand or shoulder Strap |   |
| 7.       IP Rating |      IP 54/IP 65 |   |
| 8.       Warranty |               At least one year |   |
| 9.       Product data | a.       Provide a detailed manufacturers data sheet of the LED rechargeable torch you intend to supply |   |
|  b.       Provide clear colour pictures of the LED rechargeable LED torch |   |