# **Appendix**

## **Price Schedule**

All tenderers are required to complete and submit a copy of the price schedule with their bid submissions. The bidders shall provide the prices in CIF basis.

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Stock Code** | **Item Description** | **Price (CIF)** |
| 1 | I05187 | Helium Deadend |  |
| 2 | I05188 | Wasp Deadend |  |
| 3 | I05184 | Earth Wire Deadends for 33kV |  |
| 4 | I05191 | Chafer/ Neon Deadend |  |
| 5 | I05359 | Deadend for Distribution Stay Wire (7/8 SWG) |  |
| 6 | I05192 | Deadend for Sub-transmission Stay Wire |  |
| 7 | I05099 | Helium Full Tension Crimp Joint |  |
| 8 | I05102 | Wasp Full Tension Crimp Joint |  |
| 9 | I05103 | Gopher Full Tension Crimp Joint |  |
| 10 | I05123 | Chafer/ Neon Full Tension Crimp Joint |  |
| 11 | I05212 | Chafer/ Neon Armor Rod |  |
| 12 | I05183 | Ferret Deadend |  |
| 13 | I05199 | Guy Lock for Sub-transmission Stay Wire |  |
| 14 | I05361 | Deadend for Distribution Stay Wire (7/10 SWG) |  |

## **Technical Data – Deadends**

All tenderers are required to complete and submit a copy of this form with their bid submissions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Particulars** | **Units** | **Requirements** | **Response from Bidder** |
| 1. Name of Manufacturer |  |  |  |
| 1. Address of Manufacturer |  |  |  |
| 1. Place/country of manufacture |  |  |  |
| 1. Origin of materials used for manufacturing |  |  |  |
| 1. Does the Deadends comply with AS 1154? |  | Yes/ No |  |
| 1. Deadend material: |  |  |  |
| * 1. For AAC & AAAC Conductors |  | High strength, corrosion resistant Aluminium Alloy |  |
| * 1. For SC/GZ Conductors |  | High strength galvanized steel |  |
| * 1. For ACSR Conductors |  | High strength galvanized steel for “inner” fitting and High strength, corrosion resistant Aluminium Alloy for “outer” fitting |  |
| 1. Holding load for Deadends: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Deadend | kN | 17.6 |  |
| * + 1. Wasp Deadend | kN | 16.9 |  |
| * + 1. Chafer/ Neon Deadend | kN | 47.8 |  |
| * 1. For SC/GZ Conductors |  |  |  |
| * + 1. Earth wire deadend for 33kV | kN | 49.0 |  |
| * + 1. Deadend for Distribution stay wire (7/8 SWG) | kN | 88.9 |  |
| * + 1. Deadend for Distribution stay wire (7/10 SWG) | kN | 72.3 |  |
| * + 1. Deadend for Sub-transmission stay wire | kN | 168.9 |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Ferret Deadend | kN | 15.2 |  |
| 1. Number of strands and diameter of each strand in Deadends: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Deadend | No./mm | Bidder to state |  |
| * + 1. Wasp Deadend | No./mm | Bidder to state |  |
| * + 1. Chafer/ Neon Deadend | No./mm | Bidder to state |  |
| * 1. For SC/GZ Conductors |  |  |  |
| * + 1. Earth wire deadend for 33kV | No./mm | Bidder to state |  |
| * + 1. Deadend for Distribution stay wire (7/8 SWG) | No./mm | Bidder to state |  |
| * + 1. Deadend for Distribution stay wire (7/10 SWG) | No./mm | Bidder to state |  |
| * + 1. Deadend for Sub-transmission stay wire | No./mm | Bidder to state |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Ferret Deadend | No./mm | Bidder to state |  |
| 1. Color Codes for Deadends: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Deadend |  | Black |  |
| * + 1. Wasp Deadend |  | Green |  |
| * + 1. Chafer/ Neon Deadend |  | Black |  |
| * 1. For SC/GZ Conductors |  |  |  |
| * + 1. Earth wire deadend for 33kV |  | White |  |
| * + 1. Deadend for Distribution stay wire (7/8 SWG) |  | Yellow |  |
| * + 1. Deadend for Distribution stay wire (7/10 SWG) |  | Yellow and Orange |  |
| * + 1. Deadend for Sub-transmission stay wire |  | White |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Ferret Deadend |  | White |  |
| 1. Deadends length: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Deadend | mm | Bidder to state |  |
| * + 1. Wasp Deadend | mm | Bidder to state |  |
| * + 1. Chafer/ Neon Deadend | mm | Bidder to state |  |
| * 1. For SC/GZ Conductors |  |  |  |
| * + 1. Earth wire deadend for 33kV | mm | Bidder to state |  |
| * + 1. Deadend for Distribution stay wire (7/8 SWG) | mm | Bidder to state |  |
| * + 1. Deadend for Distribution stay wire (7/10 SWG) | mm | Bidder to state |  |
| * + 1. Deadend for Sub-transmission stay wire | mm | Bidder to state |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Ferret Deadend | mm | Bidder to state |  |
| 1. Can the deadend be used in all environment types? |  | Yes/ No |  |
| 1. Do the deadends have a glue and sand finish in the inner part which will be in contact with the conductor? |  | Yes/ No |  |
| **Packaging Details**: |  |  |  |
| 1. Type of packaging |  | Cardboard Box |  |
| 1. Highest weight of packed deadends and box |  |  |  |
| 1. Are type test reports provided? |  | Yes/ No |  |
| 1. Are batch test reports provided? |  | Yes/ No |  |

**Name of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signature of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

## **Technical Data – Full Tension Crimp Joints**

All tenderers are required to complete and submit a copy of this form with their bid submissions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Particulars** | **Units** | **Requirements** | **Response from Bidder** |
| 1. Name of Manufacturer |  |  |  |
| 1. Address of Manufacturer |  |  |  |
| 1. Place/country of manufacture |  |  |  |
| 1. Origin of materials used for manufacturing |  |  |  |
| 1. Does the Full Tension Crimp Joints comply with AS 1154 & AS/NZS 4325? |  | Yes/ No |  |
| 1. Crimp joint material: |  |  |  |
| * 1. For AAC & AAAC Conductors |  | High strength, corrosion resistant Aluminium Alloy |  |
| * 1. For ACSR Conductors |  | High strength galvanized steel |  |
| 1. Breaking load for crimp joints: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Full Tension Crimp Joint | kN | 17.6 |  |
| * + 1. Wasp Full Tension Crimp Joint | kN | 16.9 |  |
| * + 1. Chafer/ Neon Full Tension Crimp Joint | kN | 47.8 |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Gopher Full Tension Crimp Joint | kN | 10.5 |  |
| 1. Crimp joint lengths: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Full Tension Crimp Joint | mm | Bidder to state |  |
| * + 1. Wasp Full Tension Crimp Joint | mm | Bidder to state |  |
| * + 1. Chafer/ Neon Full Tension Crimp Joint | mm | Bidder to state |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Gopher Full Tension Crimp Joint | mm | Bidder to state |  |
| 1. Crimp joint internal and external diameters: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Full Tension Crimp Joint | mm | Bidder to state |  |
| * + 1. Wasp Full Tension Crimp Joint | mm | Bidder to state |  |
| * + 1. Chafer/ Neon Full Tension Crimp Joint | mm | Bidder to state |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Gopher Full Tension Crimp Joint | mm | Bidder to state |  |
| 1. Crimp joint recommended die size: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Helium Full Tension Crimp Joint |  | Bidder to state |  |
| * + 1. Wasp Full Tension Crimp Joint |  | Bidder to state |  |
| * + 1. Chafer/ Neon Full Tension Crimp Joint |  | Bidder to state |  |
| * 1. For ACSR Conductors |  |  |  |
| * + 1. Gopher Full Tension Crimp Joint |  | Bidder to state |  |
| 1. Can the crimp joints be used in all environment types? |  | Yes/ No |  |
| 1. Grease details provided with the bid? |  | Yes/ No |  |
| **Electrical Type Test Details:** |  |  |  |
| 1. Standard for type test |  | Bidder to state |  |
| 1. Heat cycle and contact resistance tests: |  |  |  |
| * 1. Voltage drop across connector | µV | Bidder to state |  |
| * 1. Voltage drop across equivalent length of conductor | µV | Bidder to state |  |
| **Ageing Tests:** |  |  |  |
| 1. Number of cycles |  | Bidder to state |  |
| 1. Maximum temperature of connector | **oC** | Bidder to state |  |
| 1. Maximum temperature of conductor | **oC** | Bidder to state |  |
| 1. Initial resistance | Ω | Bidder to state |  |
| 1. Final resistance | Ω | Bidder to state |  |
| Short Circuit Current Tests: |  |  |  |
| 1. Maximum short circuit current | kA | Bidder to state |  |
| 1. Duration of maximum short circuit current | Seconds | Bidder to state |  |
| **Packaging Details**: |  |  |  |
| 1. Type of packaging |  | Cardboard Box |  |
| 1. Highest weight of packed crimp joints and box |  | Bidder to state |  |
| 1. Are type test reports provided? |  | Yes/ No |  |
| 1. Are batch test reports provided? |  | Yes/ No |  |

**Name of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signature of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

## **Technical Data – Armor Rods**

All tenderers are required to complete and submit a copy of this form with their bid submissions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Particulars** | **Units** | **Requirements** | **Response from Bidder** |
| 1. Name of Manufacturer |  |  |  |
| 1. Address of Manufacturer |  |  |  |
| 1. Place/country of manufacture |  |  |  |
| 1. Origin of materials used for manufacturing |  |  |  |
| 1. Does the Armor Rods comply with AS 1154? |  | Yes/ No |  |
| 1. Armor rod material: |  |  |  |
| * 1. For AAC & AAAC Conductors |  | High strength, corrosion resistant Aluminium Alloy |  |
| 1. Diameter of each rod and number of rods per conductor: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Chafer/ Neon Armor Rod | mm/No. | Bidder to state |  |
| 1. Color Code for Armor Rod: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Chafer/ Neon Armor Rod |  | Yellow |  |
| 1. Armor Rod length: |  |  |  |
| * 1. For AAC & AAAC Conductors |  |  |  |
| * + 1. Chafer/ Neon Armor Rod |  | Bidder to state |  |
| 1. Can the armor rod be used in all environment types? |  | Yes/ No |  |
| 1. Are specific information on minor damage repair works provided?(As per Clause 4.4.1) |  | Yes/ No |  |
| **Packaging Details:** |  |  |  |
| 1. Type of packaging |  | Cardboard Box |  |
| 1. Highest weight of packed armor rod and pallet |  | Bidder to state |  |
| 1. Are type test reports provided? |  | Yes/ No |  |
| 1. Are batch test reports provided? |  | Yes/ No |  |

**Name of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signature of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

## **Submission Requirements**

All tenderers are required to complete and submit a copy of the submission requirements with their bid submissions.

|  |  |
| --- | --- |
| **Requirements** | **Response from Bidders** |
| Completed schedules (Clause 15.1 & 15.2) (Yes/No) |  |
| Validity of bid (180 days required) (Yes/No) |  |
| Is witnessing included as part of Bid (Yes/No) |  |
| Payment conditions. |  |
| Delivery Term. (CIF preferred) |  |
| Price review period after award of tender. (months) |  |
| Detailed reference list of customers already using equipment offered during the last 5 years with particular emphasis on units of similar design and rating. |  |
| Quality management system used in the production of deadends, armor rods and full tension crimp joints, attached certificate. |  |
| Minimum warranty period from time of acceptance of item. |  |
| Typical installation manual for deadends, armor rods and full tension crimp joints. |  |
| Disposal method after service life. |  |
| Complete dimensional drawing for all items |  |
| List of Type test certificates provided. (As per Clause 6.1) |  |
| List of Batch test certificates provided. (As per Clause 6.2) |  |

**Name of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signature of Tenderer:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

## **Tender Submission – Instruction to Bidders**

The Energy Fiji Limited (EFL) (“The Employer”) is requesting proposal for the Preferred Supplier for Tender No. **MR17/2019** for EFL’s consumption to carryout repair, maintenance and Construction of Power line Network in Fiji.

The bidder shall seal the original hard copy of the technical proposal, the original hard copy of the financial proposal and each copy of the technical proposal and each copy of the financial proposal in **separate envelopes** clearly marking each one as: "ORIGINAL ", "COPY NO. I “etc. as appropriate.

The bidder shall seal the original bids and each copy of the bids in an inner and an outer envelope, duly marking the envelopes as "ORIGINAL" and "COPY".

The inner and outer envelops shall be addressed to the Employer at the following address:

Tuvitu Delairewa

General Manager Corporate Services

2 Marlow Street, Suva, FIJI.

Phone: 679 3224 185

Facsimile: 679 331 1882

Email: [TDelairewa@efl.com.fj](mailto:TDelairewa@efl.com.fj)

The envelopes shall bear the following identification:

* Bid for: **MR17/2019: Preferred Supplier for Deadends, Armor Rods and Full Tension Crimp Joints**
* DO NOT OPEN BEFORE **1600hrs 13th February 2019**
* Address and contract details of bidder **on the reverse of the envelope**

It is mandatory for Bidders to upload a copy of their bid in the TENDER LINK Electronic Tender Box no later than 4:00pm, on Wednesday **13th February, 2019**. The uploaded tender bids shall be in two (2) separate files clearly labelled as Technical Proposal and Financial Proposal respectively.

Bids shall remain valid for a period of **180 days** after the date of opening of technical and financial proposals.

To register your interest and tender a response, view 'Current Tenders' at: <https://www.tenderlink.com/efl>

For further information contact The Secretary Tender Committee, by e-mail [TDelairewa@efl.com.fj](mailto:TDelairewa@efl.com.fj)

**Hard copies of the Tender bid will also be accepted after the closing date and time provided a soft copy is uploaded in the e-Tender Box and hard copy is dispatched to courier before the closing date and time. Please note courier submission date should be forwarded to EFL with your bid.**

Tenders received after **4:00pm** on the closing date of **Wednesday 13th February, 2019:**

* Will not be considered.
* Lowest bid will not necessarily be accepted as successful bid
* **It is the responsibility of the bidder to pay courier chargers and all other cost associated with the delivery of the hard copy of the Tender submission including any Duties/Taxes. Hard copies of the Tender submission via Post Box will not be considered.**

**Extension of tender closing date:** Bidders are to note that if they require extension on the tender closing date, they are required to request for an extension 3 working days prior to the initial tender closing date.