

FIJI ELECTRICITY AUTHORITY TENDER NO MR 154 /2017

SPECIFICATIONS FOR THE SUPPLY OF LUBRICANT AND TRANSFORMER OILS

1.0 Introduction

The Fiji Electricity Authority (hereinafter referred to as the "FEA or Authority") invites tenders for the supply of Lubricant and Transformer Oils for a contract period of three (3) years. Appendix B of this document provides a list of lubricating oils and volume usage.

1.1 FEA Delivery Points

Currently the Authority has power stations and/or depots at the following locations which shall be the point of delivery of the products as and when required. Deliveries shall always be made during normal working hours or after hours as may be required.

1.1.1 Viti Levu

- 1. Vuda Power Station
- 2. Nadi Airport Power Station
- 3. Sigatoka Power Station
- 4. Kinoya Power Station
- 5. Deuba Power Station
- 6. Rokobili Power Station
- 7. Vatuwaqa Power Station
- 8. Monasavu Depot
- 9. Rakiraki Power Station
- 10. Korovou Power Station
- 11. Qeleloa Power Station
- 12. Wailoa Power Station
- 13. Nadarivatu Power Station

1.1.2 Vanua Levu

- 14. Labasa Power Station
- 15. Savusavu Power Station
- 16. Wainiqeu Power Station

1.1.3 **Ovalau**

17. Levuka Power Station

1.1.4 Taveuni

18. Waiyevo Power Station

All plants/generator sets at each site are detailed in Appendix A.

2.0 General Requirements

2.1 Lubricating Oil Containers

All supplies of lubricating oils shall be in properly sealed containers in sound condition and volumes should be provided in bulk with relevant dispensing equipment. The Authority retains the right to return any product not complying with the above or found to be contaminated, to the successful tenderer at the successful tenderers cost. All empty drums must be collected by the successful tenderers. The Authority will not take responsibility for the storage of empty drums at its power stations and/or depots.

2.2 Delivery

The successful tenderer shall deliver to the Authority, Lubricating oils at its Power Stations situated at Viti Levu, Vanua Levu, Ovalau and Taveuni as detailed in 1.1.1, 1.1.2, 1.1.3, 1.1.4 above.

2.3 Power Plant & Lubes Details

Appendix B provides the consumption figures for lubricating oils at the various Power Stations for the year 2015 and 2016.

Appendix A provides details about the types of engines and other plants. The Authority would welcome any alternative or equivalent product; provided there is adequate technical data supporting the alternative offer is given and accepted by the equipment manufacturer. Preference will also be given for products which could be used instead of a number of other products to streamline and minimize the range of products to be held by the Authority. In this regard, it would be in the interest of tenderers to provide information on any additional service that will be beneficial to the Authority.

2.4 Annual Consumption

The average annual consumption of lubricants and transformer oils is given in Appendix B.

2.5 Tendered Pricing Format

Appendix C includes a Price schedule to be completed by the bidder.

Details must be provided including:

- (i) Method of proposed supply
- (ii) Price per litre or kg in different pack sizes (1500 litres bulk [tanktainers], 205 Litres, 20litres, 5 litres for lubricating oils and 180kg,20kg,2.5kg for greases) delivered at Viti Levu sites, Labasa, Savusavu, Ovalau, Taveuni and free from any other charge and costs. These prices must remain fixed and subject for a review as per the Price Review Mechanism (Section 2.6). Any changes in prices shall be mutually agreed by the supplier and FEA before it is implemented.
- (iii) Tenderers will need to submit a proposal on how to implement their lubricant products to existing systems and indicate costs involved together with a responsibility matrix.
- (iv) A drum deposit **will not** be applicable
- (v) The tenderers must specify the method of supply in bulk (tanktainers-1500 litres) for specific product and associated bulk dispensing equipment.
- (vi) The tenderer must specify any additional lubricant dispensing equipment they could supply and associated backup services.
- (vii) The removal of waste oil from FEA sites will be the responsibility of the supplier at no cost to FEA. This is mandatory for compliance of tender bids.
- (viii) The tenderer shall specify oil analysis services and turnaround times for the sample analysis reports.
- (ix) The tenderer must specify any additional value adding services (such as Lube surveys, etc) to be provided during the course of the contract.

2.6 Price Review Mechanism

The pricing for the lubricating oils are divided into three (3) cost components and shall be reviewed on a periodic basis as tabulated below:

| Cost Component | Composition on Price | Reviewed | |
|----------------|----------------------|----------------------------|--|
| 1. Base Oil | 65% | Quarterly (every 3 months) | |

| 2. Additives | 15% | Quarterly (every 3 months) | |
|--------------|-----|----------------------------|--|
| 3. Others | 20% | Annually | |

The Quarterly price review based on movement of Base Oil Costs and Additives

The successful tenderer must provide the preceding three (3) month data for price movements to the base oils (SN100, SN150, and BRT) and additives. A change in price only to be triggered by a variance in price movement by 5% (up or down) of the average base oil and additive cost versus the previous quarter.

Annual price review based on "Others"

Annual increase to this component (20%) in accordance to half of the change in local Consumer Price Index (CPI) factor as published by the Reserve Bank of Fiji, in line with the "Onshore Cost Component" review of the FEA IDO price.

2.7 Transformer Oil

The successful tenderer shall deliver to the Authority, Transformer Oils in 205 litre drums, to its two main sites at Navutu Depot Lautoka and Kinoya Stores, Suva.

- **2.7.1** The transformer oil to be supplied under this tender shall be to current British Standards 148, SAA AS1767 and IEC60076.
- **2.7.2** Consumption of Transformer Oils for the year 2014, 2015 and 2016 in litres is given in the table below:

| Year | Consumption (Litres) |
|------|----------------------|
| 2014 | 22,763 |
| 2015 | 15,352 |
| 2016 | 9,560 |

3.0 Other Value Adding Services

The tenderers are required to list all services (HSE training, surveys, testing, product training and oil analysis, management training, plans for new storage facility, etc) they are prepared to provide in the way of technical, management and proactive customer services as these will be taken into account when tenders are being evaluated.

APPENDIX A: Details of Power Station Generator Sets

| Location | Station | Sets | | | | | |
|------------|----------------|----------|----------------------------|---------------------------|--------------|--------------|----------------|
| | | | Make | Model | Speed RPM | Year | Installed (MW) |
| | Viida IDO | 1 | Mirrlees Blackstone | KV16 | 500 | 1976 | 5.74 |
| | Vuda- IDO | 2 | Mirrlees Blackstone | KV16 | 500 | 1976 | 5.74 |
| | Vuda - HFO | 3 | Wartsila | 18V32LN | 750 | 2001 | 6.3 |
| | - | 1 | Wartsila | 18V32LN | 750 1500 | 2001 | 6.3 |
| | | 2 | Caterpillar Caterpillar | CAT3516 CAT3516 | 1500 1500 | 2002 | 1.04 1.04 |
| | | 3 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 5 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 6 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | Nadi | 7 | Cummins | KTA 50 KTA 50 | 1500 1500 | 2014 | 1.00 1.00 |
| | | 9 | Cummins Cummins | KTA50 | 1500 | 2014 | 1.00 |
| | | 10 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 11 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 12 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 2 | Caterpillar Caterpillar | CAT3516 CAT3516 | 1500 1500 | 2002 | 1.4 1.4 |
| | | 3 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | Qeleloa | 4 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 5 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 6 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| | | 7 | Cummins Caterpillar | KTA 50 CAT3516 | 1500 1500 | 2014 | 1.00 1.04 |
| | Rakiraki | 2 | Caterpillar | CAT3516 CAT3516 | 1500 | 2002 | 1.04 |
| | | 1 | Cummins | KTA 50 | 1500 | 2014 | 1 |
| | | 2 | Caterpillar | CAT3516 | 1500 | 2000 | 1.04 |
| Viti Levu | | 3 | Caterpillar | CAT3516 | 1500 | 2000 | 1.04 |
| li ii. | Sigatoka | 5 | Cummins Cummins | KTA 50 QSK60 | 1500 1500 | 2014 | 1 1.6 |
| > | | 6 | Cummins | QSK60 QSK60 | 1500 | 2011 | 1.6 |
| | | 7 | Cummins | QSK60 | 1500 | 2011 | 1.6 |
| | | 8 | Cummins | QSK60 | 1500 | 2011 | 1.6 |
| | | 4 | Cummins | QSK60 | 1500 | 2014 | 1.6 |
| | Deuba | <u>5</u> | Cummins Caterpillar | QSK60 CAT3516 | 1500 1500 | 2012 | 1.6 1.2 |
| | | 3 | Caterpillar | CAT3516 | 1500 | 2014 | 1.20 |
| | | 9 | Cummins | KTA 50 | 1500 | 2015 | 1.00 |
| | | 11 | Cummins | KTA 50 | 1500 | 2015 | 1.00 |
| | Rokobili | 12 | Cummins | QSK38 | 1500 | 2015 | 1.00 |
| | | 13 14 | Cummins Cummins | QSK38 QSK38 | 1500 1500 | 2015 2015 | 1.00 1.00 |
| | | 15 | Cummins | QSK38 | 1500 | 2015 | 1.00 |
| | | 16 | Cummins | QSK38 | 1500 | 2015 | 1.00 |
| | | 1 | Mak Cat 1 | CM32 | 750 | 2005 | 7.45 |
| | Kinoya-IDO | 2 | Mak Cat 2 | CM32 | 750 | 2005 | 7.45 |
| | · | 3 | Mak Cat 3 Mak Cat 4 | CM32 CM32 | 750 750 | 2005 2005 | 7.45 7.45 |
| | | 8 | Wartsila | 18V38 | 750 | 2003 | 10.33 |
| | Kinoya-HFO | 9 | Wartsila | 18V38 | 750 | 2001 | 10.33 |
| | | 1 | Wartsila | W20V32 | 750 | 2015 | 8.90 |
| | New Kinoya-HFO | 2 | Wartsila | W20V32 | 750 750 | 2015 | 8.90 |
| | , - | 3 | Wartsila Wartsila | W20V32 W20V32 | 750 750 | 2015 2015 | 8.90 8.90 |
| | IV | 1 | Cummins | KTA 50 | 1500 | 2016 | 1 |
| | Korovou | 2 | Cat | C18 | 1500 | 2006 | 0.5 |
| | | 1 | Ruston | 12RK270 | 750 | 1998 | 2.72 |
| | | 2 | Caterpillar Caterpillar | CAT3516 | 1500 1500 | 2009 | 1.6 1.6 |
| | | 3 4 | Caterpillar | CAT3516 CAT3516 | 1500 | 2009 | 1.6 |
| | | 5 | Cummins | QSK60 | 1500 | 2014 | 1.6 |
| | Labasa | 6 | Ruston | 16RK270 | 750 | 2000 | 3.6 |
| Vanua Levu | | 7 | Cummins | KTA 50 | 1500 | 2014 | 1.00 |
| ua l | | 8 | Cummins Cummins | KTA 50 KTA 50 | 1500 1500 | 2014 2014 | 1.00 1.00 |
| √an | | 10 | Caterpillar | CAT3516 | 1500 | 2014 | 1.60 |
| | | 11 | Cummins | KTA 50 | 1500 | 2012 | 1.00 |
| | | 1 | Cummins | KTA 50 | 1500 | 2014 | 1 |
| | Ca | 2 | Caterpillar | Cat3516 | 1500 | 2012 | 1 |
| | Savusavu | 3 4 | Caterpillar Cummins | Cat3412 KTA 50 | 1500 1500 | 2012 | 0.58 1 |
| | | 5 | Caterpillar | Cat3412 | 1500 | 2012 | 0.58 |
| | | 5 | Caterpillar | CAT 3412 C STA | 1500 | 2008 | 0.6 |
| lan | | 1 | Cummins | QSK23G3 | 1500 | 2006 | 0.6 |
| Ovalau | Levuka | 2 | Cummins | QSK23G4 | 1500 | 2016 | 0.6 |
| | | 3 4 | Cummins Caterpillar | QSK23G5 CAT 3412 C STA | 1500 1500 | 2016 | 0.5 0.5 |
| · = | | | | | | | |
| Taveuni | Waiyevo | 2 | Cummins | KTA 50 | 1500 1500 | 2016 | 1.00 |
| | | | | 1 | 1 | | |

| Station | Sets | Renewable Sets | | | | | |
|---|------|----------------------------|-------|-------|------|----------------|--|
| | | Make | Туре | Speed | Year | Installed (MW) | |
| | 1 | TIBB (Milano)-Pelton Wheel | Hydro | 750 | 1983 | 20.8 | |
| Wailoa | 2 | TIBB (Milano)-Pelton Wheel | Hydro | 750 | 1983 | 20.8 | |
| Walloa | 3 | TIBB (Milano)-Pelton Wheel | Hydro | 750 | 1983 | 20.8 | |
| | 4 | TIBB (Milano)-Pelton Wheel | Hydro | 750 | 1983 | 20.8 | |
| Butoni Wind Farm | 36 | GEV MP Vergnet SA | Wind | | 2007 | 10 | |
| Wainikasou | 1 | Frances Turbine | Hydro | 1500 | 2003 | 3.3 | |
| Wallikasou | 2 | Frances Turbine | Hydro | 1500 | 2003 | 3.3 | |
| Nagado | 1 | Pelton Wheel | Hydro | 1500 | 2004 | 2.8 | |
| Nadarivatu | 1 | Pelton Wheel | Hydro | 428 | 2012 | 22 | |
| Nauarivalu | 2 | Pelton Wheel | Hydro | 428 | 2012 | 22 | |
| Wainiqeu, Savusavu 1 Chinese - pelton whe | | Chinese - pelton wheel | Hydro | 1000 | 1992 | 0.4 | |
| | 2 | Chinese - pelton wheel | Hydro | 1000 | 1992 | 0.4 | |
| Somosomo | 1 | Chinese - pelton wheel | Hydro | 1000 | 2016 | 0.35 | |
| | 2 | Chinese - pelton wheel | Hydro | 1000 | 2016 | 0.35 | |

APPENDIX B: Lubricating Oil Usage (Litres) 2015 - 2016

| | Description | 2015 | 2016 |
|---|-----------------------|---------|---------|
| 1 | AURELIA TI 4055 | 151,765 | 207,710 |
| 2 | Rubia TIR7400 15W40 | 129,392 | 103,800 |
| 3 | Disola M 3015 | 4,130 | 12,330 |
| 4 | Disola M 4015 | 56,385 | 23,575 |
| 5 | Preslia 32 | 3,120 | 2,704 |
| 6 | Preslia 46 (Wainiqeu) | 416 | 1,040 |
| 7 | Preslia 68 (Wailoa) | 8,320 | 4,160 |

| | HFO LUI AURELIA | | Rubia TIR7400 15W40 | | Disola M 3015 | | Disola M 4015 | |
|----------------|--------------------|---------|---------------------|---------|---------------|--------|---------------|--------|
| Power Stations | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| Deuba | | | 8,320 | 3,120 | | | | |
| Kinoya | 129,215 | 179,010 | 14,160 | 16,340 | | | 43,060 | 14,350 |
| Korovou | | | | | | | | |
| Labasa | | | 8,320 | 8,720 | 4,130 | 10,250 | | |
| Levuka | | | 11,440 | 12,480 | | | | |
| Nadi | | | 17,472 | 10,400 | | | | |
| Navutu | | | | | | | | |
| Qeleloa | | | 8,320 | 5,200 | | | | |
| Rakiraki | | | 8,320 | 5,200 | | | | |
| Rokobili | | | 32,240 | 20,500 | | | | |
| Savusavu | | | 11,440 | 8,320 | | 2,080 | | |
| Sigatoka | | | 9,360 | 13,520 | | | | |
| Vuda | 22,550 | 28,700 | | | | | 13,325 | 9,225 |
| Total | 151,765 | 207,710 | 129,392 | 103,800 | 4,130 | 12,330 | 56,385 | 23,575 |

APPENDIX C: Price Schedule

| | Lubricating Oils (FEA U | sage) | Proposed Product Details | | | |
|-----------|-------------------------|-----------------------|--------------------------|--------------------------|---------------------------|--|
| Item # | Product Name | Pack Size (Litres) | Product Name | Pack Size (Litres) | Price (FJ\$ VEP/Litre) | |
| 1 | Preslia 68 | 208 | | | | |
| 2 | Preslia 46 | 208 | | | | |
| 3 | Preslia 32 | 208 | | | | |
| 4 | Multis Complex HV 2 | 180 | | | | |
| 5 | Multis Complex S2 A | 180 | | | | |
| 6 | Multis EP 2A | 180 | | | | |
| 7 | RUBIA TIR 7400 15W40 | 208 | | | | |
| 8 | Isovoltine II | 208 | | | | |
| 9 | Disola M 3015 | 205 | | | | |
| 10 | Disola M 4015 | 205 | | | | |
| 11 | AURELIA TI 4055 | 205 | | | | |

Submission of tenders

In addition <u>two (2) hard copies</u> of the tender bids in sealed envelope shall be deposited in the tender box located at the Supply Chain Office at the FEA Head Office, 2 Marlow Street, Suva, Fiji.

Courier charges for delivery of Tender Document must be paid by the bidders.

This tender closes at 4:00pm, on Wednesday 9th of August, 2017.

For further information contact The Secretary Tender Committee, by e-mail TDelairewa@fea.com.fj

Each tender shall be sealed in an envelope with:

The envelope bearing only the following marking:

Tender – MR154/2017 – Supply of Lubricating Oils

The Secretary, Tender Committee Fiji Electricity Authority

Supply Chain Office Private Mail Bag, Suva

It must also indicate the name and address of the tenderer on the reverse of the envelope.

Tenders received after **4:00pm** on the closing date of **Wednesday 9th of August, 2017** will not be considered.

All late tenders, unmarked envelopes and envelopes without bidder's name and address on the reverse will be returned to the Tenderers.