

FIJI ELECTRICITY AUTHORITY



TENDER SPECIFICATIONS

TENDER

TENDER NO: MR 82/2017

**Supply, Installation and Commissioning of the DSE controller for
Vuda Standby Set.**

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SECTION 1 GENERAL

1.0 Scope of work

The FEA invites potential bidders to submit bids for the supply, installation and commissioning of the DSE 8610 controller at Vuda Power Station

The current controller for the stand-by set at Vuda Power Station is DSE 7320 and need to be upgraded to DSE 8610.

The following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tender cost-whether specifically in the schedule of work as below:

- 1.1 Supply and change DSE controller from DSE 7320 to DSE 8610.
- 1.2 Carry out general control wiring of the DSE 8610 controller.
- 1.3 Change program data from DSE 7320 to DSE 8610.
- 1.4 Control wiring and settings for the Governor / AVR.
- 1.5 Test and commission.

2.0 Controller

The controlled shall be a DSE controller which shall be suitable for 12 Volt/24 Volt DC power supply and have suitable amount of inputs and outputs for the control of a Standby diesel generator plant with all the related indications and alarms required in the specification.

The controller shall operate automatically. Within seconds of a utility failure the controller should senses the power loss, commands the standby set to start. The standby set begins supplying power to the auxiliary circuit. After utility power returns, the controller module should send the signal to command the standby set to shut down. It then returns to standby mode where it awaits the next outage.

SECTION 2 SPECIFICATION

1.0 Controller specifications:

1.1 Dead bus sensing – The controller shall have a dead bus sensor producing a dead bus signal indicative of a power failure on a power bus that is an input to the controller on a digital input channel. The controller also receives a voltage signal from a phase of a power bus.

1.2 Direct governor and control AVR – The controller shall have a built-in governor and AVR to control speed and voltage.

1.3 Integral PLC editor - The controller shall have inbuilt PLC editor which helps users access and activate additional functionality.

1.4 Input / Output can be configured – It shall have configurable inputs and output point. Inputs/Output points shall be not less than 8.

1.5 Dead bus synchronizing – The controller shall close the standby set circuit breaker when there is no voltages/ current on the LV bus.

1.6 Governor and AVR – The controller shall have a build-in governor and AVR.

1.7 Base load – It shall have a Base load functionality which can consistently generate the electrical power needed to satisfy the minimum demand.

1.8 Historical alarms and operational status – It shall provide access to upload historical alarms and operational data status of the Standby set.

1.9 Power measurement information – The controller shall provide clear and accurate power measurement information of True power (kW), Reactive power (kVAR), Frequency (Hz), Volts (V), power factor (PF), Current (I).

1.10 Current and historical information – The controller shall provide historical and current information of the Standby set.

2.0 Operation Instruction:

2.1 The function of each switch or control device shall be detailed

2.2 Manual or operation settings and procedures shall be detailed.

3.0 WARRANTY

The DSE controller shall have a warranty period of not less than twelve [12] months from the date of delivery to the FEA Navutu Yard.



SECTION 3 COST SCHEDULE

TABLE 1.1

Supply and install of the DSE controller			
Item	ITEM DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	Supply of controller DSE 8610		
2	Disconnect of the old DSE Controller Install and carry out general control wiring for DSE 8610		
3	Program data in the controller module for synchronizing with current dashboard.		
4	Governor and AVR control wiring to match existing dashboard.		
5	Warranty		
	TOTAL (VEP)		
	VAT 9%		
	Withholding Tax		
	TOTAL (VIP)		

Notes:

1. FEA financial terms are applicable for these works.

SECTION 4 SUBMISSION OF TENDER

Two (2) hard copies 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 04.00pm on Wednesday, 19th April, 2017.

Site visits are listed above. Please note date and time. Team leaders of various stations will be facilitating the visit.

Each tender shall be sealed in an envelope with:

The envelope bearing only the following marking:

Tender- MR 82/2017 – Supply, Installation and Commissioning of the DSE Controller for FEA’s Vuda Power Station

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.

All late tenders, unmarked Envelopes and envelopes without bidder’s name and address on the reverse of the envelope. (Bids via e-mail or fax will not be considered).

For further information or clarification please contact our Supply Chain Office on phone **(+679) 3224360** or **(+679) 9991587**.