#### GOVERNMENT OF TAMILNADU DEPARTMENT OF TECHNICAL EDUCATION GOVERNMENT COLLEGE OF ENGNEERING BODINAYAKKANUR-625 582 Telephone No.: 04546-282 555

## **NOTICE INVITING E-TENDER**

Tender Inviting Authority	The Principal, Government College of Engineering, Bodinayakkanur-625 582. Theni District Tamil Nadu Phono:04546-282555
	Phone:04546-282555

## Tender Ref No: GCEBN/03430/A3/EEE/2022 Dated.25.05.2022

E-Tenders are invited through online under two Bid system for the **Supply of Hybrid Wind Solar Module** for **Electrical and Electronics Engineering Department Laboratory** as detailed below at Government College of Engineering Bodinayakkanur-625 582. Detailed Technical Specification of the equipment's to be supplied are given in the Annexure.

### **TERMS AND CONDITIONS:**

- 1. The Bidders interested in participating the e-Tender must be registered with Tamilnadu e-procurement system portal and also should have Digital signature certificate.
- 2. Bidders should submit their bids in two bids system through online (www.tntenders.gov.in) in prescribed format only.

(i) <u>Technical Bid</u> – shall be submitted along with self-attested scanned copies of necessary documents in .pdf format.

#### (ii) Financial Bid -

- a) In xls format only (Excel format).
- b) Rate & Tax per unit (**for single unit only**) should be mentioned separately
- c) Rates quoted by Bidders should be firm & Final
- d) Prices should be quoted only in Indian Rupees (INR).
- e) Price should be inclusive of all Freight, Insurance, Packing, Loading & Unloading, Delivery charges etc.
- 3. Tenders in any other manner will not be accepted.
- 4. Bidders should have local office in Tamil Nadu.
- 5. Bidders must not be blacklisted by Government of Tamil Nadu.
- 6. The Bidders must have valid
  - a) PAN
  - b) Valid GST Registration Number. (Bids without GST registration Copy will be rejected).
- 7. Each bidder should clearly specify that the bidder agrees to abide the conditions of this tender document on their printed letter head duly sealed & signed by an authorized person

- Bidders should upload PAN, GST & Authorization letter / Certificate from OEM in Technical bid cover
- Brochureswith the images of the product should be produced. Bids without the brochures will be summarily rejected.
- 10.Validity of the bid should not be less than 90 days
- 11.Warranty should not be less than <u>**1 year**</u> (It will start after the date of Successful Installation).
- 12.Delivery of the item should be done at Government College of Engineering Bodinayakkanur-625 582
- 13.Mode of payment through ECS of supplier's bank account (100% payment will be given only after the goods are received in good condition and installation is completed).
- 14.No Advance payment will be made.
- 15.As per Tamil Nadu Transparency in Tender Act 1998 and Tamil Nadu Transparency in Tender Rules 2000
  - a) Government College of Engineering Bodinayakanur -625 582 reserves the right to modify reduce and increase the quantity required.
  - b) Withhold any amount for the deficiency in service aspect of the ordered items.
- 16.The Final decision would be based on the Technical Capacity and pricing of the bidder.
- 17.The Principal, Government College of Engineering Bodinayakkanur-625 582 reserves the right, not to accept lowest price or to reject any or all the tenders without assigning any reasons.
- 18. The Principal, Government College of Engineering Bodinayakkanur, reserves the right to call off tender process at any stage without assigning any reasons.

N.V. len 25 [05/2022 HOD / EEE

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(Tender Inviting Authority) Principal Government College of Engineering Bodinayakkanur-625 582

# ANNEXURE

S. <mark>N</mark> o	Detailed Specification	Quantity Required
1	Hybrid Wind Solar Module	01
	24Watts PMSG based Micro wind+Solar Generation Trainer	
	a. 24W Wind Turbine with Blower setup	
	A Blower and a 200Watts, peak, 24W continuous Wind Turbine	
	are mounted on a Mechanical Frame for Simulating Wind Power	
	Generation for laboratory use.	
	<ul> <li>Performance Parameter</li> </ul>	
	• Rated Electrical Power : 24 W@8.2m/s	
	• Rated Wind Speed :12m/s	
	• Cut-in : 3.5m/s	
	• Start-up Wind :2.5m/s	
	• Voltage $(V)$ :3Phase/24VAC	
	• Watts @ Rated wind speed	
	• Waits a Raied wind speed .24 Waits	
	b. Solar Panel: (20+20) W solar panel – 1No	
	c.100 W Hybrid DC-DC Buck-Boost Converter	
	• 3 Phase full wave uncontrolled rectifier provided for	
	current AC to DC from wind mill	
	<ul> <li>Microcontroller based Buck-Boost with MPPT algorithm</li> </ul>	
	Switching device IGBT	
	• dv/dt protection is available for IGBT (Snubber circuit)	
	• Input – I (Wind)	
	<ul> <li>I/P voltage range 12VDC - 24VDC</li> </ul>	
	• O/P voltage range 24VDC	
	• Input – II (Solar)	
	• I/P Voltage Range 12VDC - 30VDC	
	• O/P Voltage Range24VDC	
	• All the I/P & O/P are sensed through isolated sensors	
	• Proper termination provided for input and output with	
	MCB protection.	
	• 4 keys provided to select the type of control program	
	• 20x4 LCD displays all the I/P / O/P data	
	• Over current, Over voltage & temperature protection.	
	• 34pin FRC & 26 pin FRC provided for external	
	controller interface.	
	• One RS232 port provided to interface with PC	
	d. Battery : 24V/26AH, Maintenance free	
	e. 100W, 1Ф, 2 Level Inverter	
	• I/P Voltage : 48V DC	
	<ul> <li>O/P Voltage: 230V AC / 0.5A (max)</li> </ul>	
	Sine wave output with LC Filter	
	• 34 pin FRC & 26 pin FRC provided for	
	interface provided for controller	
	<ul> <li>4 Numbers of High speed Opto - isolator provided for</li> </ul>	