



Call for Tender

Project Title: High level rEnewaBle and energy efficiency mASter courses

Programme: Erasmus+

Project Acronym: HEBA

Project number: **585740 - EPP – 1 – 2017 – 1 – AT – EPPKA2 – CBHE - JP**

Helwan University is in the process of supplying scientific equipment for the Energy Efficiency and Renewable Energy Laboratory (EFREL). The complete list of required equipment, specifications, and tender conditions are available at the procurement department of the faculty of engineering Helwan University.

If you are interested to participate in the tender, kindly provide the following document:

- Company profile.
- Copy of legal and Ownership Company document (VAT registration certificate, commercial record, etc.)
- Complete technical and financial offer.
- Other document might be requested in an individual basis.

The above mentioned documents should be presented at the procurement & store Department at the faculty of engineering at Helwan, 1 sherif street, Helwan Cairo. The dead line for quotations is December 18, 2019 at 1 Pm.

Contact Person: Professor. Adel Alsamahy, HEBA project coordinator.

Mr. Mohamed Gaber, Head of procurement department, faculty of engineering at Helwan, Helwan University.



Procurement at Store Department
Faculty of Engineering at Helwan
A Sherif street, Helwan, Egypt.
Tel & Fax: 0020 25558293

Cairo on November 28th, 2019



Equipment List

Project Title: High level rEnewaBle and energy efficiency mASter courses

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Item	PART NUMBER / DESCRIPTION	QTY
1	Insulation Tester (10 KV)	1
2	Vibration Analyzer <i>Accessories:</i> PM Reluctance Synchronous Motor	1
3	I-V curve tracer and IVCK tester	1



Tender General Condition

- Prices are in Euros.
- Prices don't include VAT and customs.
- All equipment are from specialized international manufactures, certificate of origin should be submitted.
- Payment method: 100 % within 3-4 weeks from shipment date.
- Delivery period 1-3 months from contract date or down payment, the early one.
- Delivery, Cairo airport.
- Warranty period, at least 1 year.
- Availability of spare parts when needed.
- Certified maintenance centre.



Equipment Technical Description

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Item no.	Description	Number of
1	<p>Insulation Tester:</p> <p>Insulation tester (MEGGER) Offering CAT IV with 10 kV insulation resistance tester for the diagnostic testing and maintenance of high voltage electrical equipment. Enclosed in a tough case with both smaller and lighter than its predecessor to be easier to carry and store.</p> <p>As well as measuring insulation resistance to 20 TΩ, also offers various diagnostic tests such as Polarisation index, Dielectric Absorption Ratio, Step Voltage, Dielectric discharge and ramp testing.</p> <p>Equipped with lithium ion fast rechargeable batteries, the instrument has a large, clear, easy to read, display making it equally suitable for use in both bright sunlight and poorly lit environments. Information displayed includes resistance, voltage, leakage current, capacitance, battery status and time constant. In addition, the elapsed time of the test is displayed constantly removing the need for separate timer.</p> <p>Application:</p> <ul style="list-style-type: none">• Measuring insulations of motors coils, transformers, cables, and H.V circuit breakers <p>Specification:</p> <ul style="list-style-type: none">• Please refer to detailed specifications	1

<p style="text-align: center;">2</p>	<p>Fluke model 810:</p> <p>On-board identification and location of the most common mechanical faults (bearings, misalignment, unbalance, looseness) focus maintenance efforts on root cause, reducing unplanned own time. Overall vibration level allows you to quickly assess overall machine health directly from the diagnosis screen.</p> <p>Fault severity scale with four severity levels helps you prioritize maintenance work Repair recommendations advise technicians on corrective action. Detailed diagnostic reports and spectral diagrams help confirm data quality, and narrow down.</p> <p>The root cause of failures On-board context sensitive help provides real-time tips and guidance to new users</p> <p>Flexible machine speed configurations gives the ability to test a broad range of assets including belt drives, gear boxes, and bevel gears. 2 GB expandable on-board memory provides enough space for your machinery's data.</p> <p>Accessories:</p> <p>PM Reluctance Synchronous motor.</p> <p>Application:</p> <ul style="list-style-type: none"> • Root failure analysis of motor shaft and coupling gears • Commission new equipment and ensure proper installation • Provide quantifiable proof of equipment condition and drive investment in repair or replacement • Anticipate equipment failures before they happen and take control of spare parts inventories <p>Specification:</p> <ul style="list-style-type: none"> • Please refer to detailed specifications. 	<p style="text-align: center;">1</p>
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3	<p>IV Tracer</p> <p>IV tracer allows field detection of I-V Curve of the main characteristic parameters both of a single module and of strings of modules for PV installations up to a maximum of 1000V and 15A. For measuring I-V Curve, and manages an internal database of the modules, which can be updated at any time by the user and comparison between the measured data with the rated values allows immediately evaluating whether the string or the module fulfills the efficiency parameters declared by the manufacturer. I-V Curve can be measured also by decentralizing measurement of irradiation and temperature by using the optional remote unit SOLAR02, using the radio frequency connection (RF) with the master unit.</p> <p>The display at the end of the test of I-V Curve is a clear indication about the compliance with the specifications declared by the panel manufacturer.</p> <p>Application:</p> <ul style="list-style-type: none">• Measuring IV curve for one or more PV panel or for one string up to 1000 V and 15 A.• Measurement of open circuit voltage and short circuit current for the single module.	
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