Republic of the Philippines
CARAGA STATE UNIVERSITY
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Competence Service Uprightness

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BIDS AND AWARDS COMMITTEE (BAC)

ADDENDUM NO. 01
Series of 2023

This Addendum No. 01 is issued to modify or amend items in the Bidding Documents for the **Provision of Highly Technical and Scientific Equipment for Engineering Laboratories to Strengthen Micro-Electronics, Renewable Energy, Robotics and Automation, and Mining Engineering Technology**. This shall form an integral part of the Bid Documents.

Name of Project:	**Provision of Highly Technical and Scientific Equipment for Engineering Laboratories to Strengthen Micro-Electronics, Renewable Energy, Robotics and Automation, and Mining Engineering Technology**
Location:	CSU Campus, Ampayon, Butuan City
Brief Description:	Provision of Highly Technical and Scientific Equipment for Engineering Laboratories to Strengthen Micro-Electronics, Renewable Energy, Robotics and Automation, and Mining Engineering Technology
Approved Budget for the Contract :	**Php. 7,500,000.00**
Source of Funds:	Trust Receipt Fund (TRF) 2023
Contract Duration:	90 Calendar Days

Please be informed of the changes in the Bidding Documents as follows:

CHANGES/ AMENDMENT					
ITEM & DESCRIPTION					
No.	**ITEM**	**Qty**	**Unit**	**Unit Cost**	**Total Cost**
1.	**Renewable Energy (RE) Generation and Training Equipment** *Power supply: AC220V±10%, 50HZ; *Power: ≤500W; *Temperature: -10°C～+40°C *Dimensions (l × w × h): work bench: 1200* 700 ×1800mm; *Frame with solar panel: 540*1025*500mm(4set) Training bench 1200*700*1800mm *Solar panel 4 sets: DC18V *Power: 100w, *Size:540*1025mm *Simulated light source: Power: 1000w, 220VAC *Controller : 12V/24V, 10A *Inverter: 380VAC, 2kw *Battery: 12V/65AH *Measuring device: Ammeter, Voltmeter, Wattmeter **Training courses**: 1. Energy conversion experiment of solar photovoltaic panels 2. The influence of environment on PV transformation 3. Direct load characteristic test of solar cell photovoltaic system 4. Working principle experiment and protection measures of solar controller 5. Experiment on overcharging protection of solar cells 6. Experiment on battery discharge power	1	unit	₱965,000.00	₱965,000.00

<table>
<tr>
<td>2.</td>
<td>Provision and Installation of Solar PV Systems with Smart Monitoring Systems
<table>
<tr><th>Qty</th><th>Unit</th><th></th></tr>
<tr><td colspan="3">A. Grid Tied System Main Components</td></tr>
<tr><td>48</td><td>panels</td><td>550Wp monocrystalline Solar module, tier 1, with IEC certification, 4.4KWp per set</td></tr>
<tr><td>48</td><td>set</td><td>Aluminum railings 4200 mm (anodized aluminum; at least 6005 T5 with surface protection anodic oxidation 12-15 micron (μ)), including mid clamps and end-clamps</td></tr>
<tr><td>6</td><td>unit</td><td>Grid tie Solar Inverter, 60kW output, 230/400 V AC output, 3-phase, 60hz, with IEC Certification</td></tr>
<tr><td colspan="3">B. DC CABLING</td></tr>
<tr><td>360</td><td>meters</td><td>6mm^2 Solar Cable - for Strings</td></tr>
<tr><td>6</td><td>pcs</td><td>Solar panel Micro DC Circuit Breaker, 1100VDC, 25A</td></tr>
<tr><td>6</td><td>pcs</td><td>Solar panel Surge Protection Device (SPD), 20kA</td></tr>
<tr><td>6</td><td>pcs</td><td>DC Circuit Breaker, 1500VDC, 25 Amperes</td></tr>
<tr><td>6</td><td>lot</td><td>Rapid Shutdown Device, String Level</td></tr>
<tr><td>60</td><td>pcs</td><td>PVC Conduit, 1.5 inch diameter</td></tr>
<tr><td colspan="3">C. AC CABLING</td></tr>
<tr><td>6</td><td>pcs</td><td>Surge Protection Device for AC</td></tr>
<tr><td>1200</td><td>meters</td><td>16mm^2 solar cable - for AC Output, 106A</td></tr>
<tr><td>6</td><td>pcs</td><td>150A, 440V, 3pole Circuit Breaker - in Enclosure for AC Output</td></tr>
<tr><td>60</td><td>pcs</td><td>1" dia. x 3m PVC Pipe</td></tr>
<tr><td>48</td><td>pcs</td><td>1" dia PVC C-clamps</td></tr>
<tr><td colspan="3">D. Additional Specs</td></tr>
<tr><td></td><td></td><td>Installation and Commissioning of 6 sites (5 Ampayon Campus and 1 Cabadbaran Campus)</td></tr>
<tr><td></td><td></td><td>Onsite delivery to 6 sites (5 Ampayon Campus and 1 Cabadbaran Campus)</td></tr>
</table>
-Include service maintenance for 2 years (Quarterly cleaning if needed)
-Include Net Metering Application, Electrical Permit, ANECO Permits and other permits for the installation.
-Include training and orientation of the product
-Interested bidders must have a branch or at least an authorized service center located in Butuan City for easy after sales support, service charge included in the workmanship warranty period (2 years)
-Ocular inspection or store visit will be conducted to the interested bidder to formulate design and quotation
-Component warranties:
-PV panel: 10yrs
-Mounting structure: 5 yrs.
-Inverters: 5yrs</td>
<td>1</td>
<td>Lot</td>
<td>₱3,450,000.00</td>
<td>₱3,450,000.00</td>
</tr>
</table>

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3.	**Electronic workbench** Training bench; Instrument housing -Oscilloscope: 1 -DC power supply: 1 -Function generator: 1 -RF generator: 1 -Digital multimeter: 1 -AC power supply: 0~250V,6V,12V,24V -Soldering station x1 -AC outlet x 6 -Test leads holder	3	units	₱300,000.00	₱900,000.00
4.	**PCB Prototyping Machine** Working area: 320 x 230mm Resolution: 0.5um Control motor: Stepper Motor Max Travel Speed 60mm/sec Min Trace Width 4mil Dust Enclosure Power Source:220Vac Vacuum dust Collector Automatic Tool Change 12 position Tool Holder: 1/8" socket *Fiducial Positioning Camera 30x (USB Interface); *Design Pro Software: Conversion + CAM + EASY *CADCarton *Dimension: 72 x 56 x 62(H) cm *FR 4 copper clad board 350x250mm: 50 pcs. *Toot bit 40 pcs. per set: 3 sets	1	unit	₱1,500,000.00	₱1,500,000.00
5.	**Modelling software for Mining Engg** * Widely used software system for mining engineering, * Supporting open pit and underground mining operations and exploration simulations. * Enables mining practitioners to quantify and evaluate mineral deposits and to plan the efficient extraction of reserves * Fifteen (15) Surpac Licenses valid for 36 Months. * Version must be Surpac 2023, and upgradeable upon release of the 2024 and 2025 versions. * With mine design functionalities as follows: * 3D graphics display of geological and engineering data. * Model and create in 3D, representations of mining data. * Practical mine design for both surface and underground. * Design bench, berm and ramps constraints for surface mining. * Design stopes, tunnels, ramps and shafts for underground mining. * Design waste dumps, tailing dams and haul roads for mining infrastructure. * Incorporate geotechnical constraints into design such as slope stability. * Integrate geology for reserve reporting of grade, tonnes and volumes. * Produce mine plans and visual outputs.	1	Lot	₱300,000.00	₱300,000.00
6.	**Vacuum Forming Machine** Sheet Size: 330 mm x 250 mm Maximum Sheet Thickness: 3.0 mm Minimum Sheet Thickness: 0.2 mm Forming Area: 280 mm x 200 mm Maximum Depth Draw: 200 mm Overall Width: 400 mm Overall Height: 405 mm	1	Unit	₱385,000.00	₱385,000.00

	Overall Depth: 35 mm Standard Input Voltage: 100 V - 240 V Standard Frequency: 50, 60 Hz Standard Wattage: 1.32 kW Heater Temperature: up to 250 deg Celsius raw materials				
	Additional: *Must have Manufacturer Certificate				
				TOTAL	**₱7,500,000.00**

Submission of Bids

Shall be done through electronic means and/or Hard Copies:

a. For electronic submission, shall use of a two-factor security procedure consisting of an archive format compression and password protection to ensure the security, integrity and confidentiality of the bids submitted;

b. Allow access to a password-protected Bidding Documents on the opening date and time. The passwords for accessing the file will be disclosed by the Bidders only during the actual bid opening which may be done through video conferencing;

c. Only duly accomplished password-protected and compressed Bidding Documents (ZIP/RAR) sent to csu.bacsecreatriat@carsu.edu.ph shall be accepted by the CSU Bids and Awards Committee. Password - Protected and compressed bidding Documents (ZIP/RAR) using Google Drive will not be Accepted;

d. Inclusion of additional details for all ongoing government and private, including awarded but not yet started contracts reflecting details/data as follows: Name of Contact Person, Contact Numbers and Email Address;

e. Inclusion of additional details for the Single Largest Completed Contract (SLCC) reflecting details/data as follows: Name of Contact person, Contact Numbers and Email Address;

f. Prospective Bidders are encouraged to submit the hard copy (duly sealed and signed) consisting of 1 original copy, copy1 and copy 2 aside from the soft/ e-copy (password-protected) of their Bidding Documents on or before the schedule of the opening of bids. The same is established for the security in the part of the bidders in anticipation that there might be technical problems and/or power outage encountered during the conduct of virtual Opening of Bids; and

g. For the submission of hard copies, Bidders shall submit their bids through their duly authorized representative using the forms specified in the Bidding Documents in two (2) separate Sealed and Signed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under Section 23.1 of the IRR of R.A 9184 for the procurement of Goods and Infrastructure Projects, and the second shall contain the financial component of the bid.

********** NOTHING FOLLOWS **********

For guidance and information of all concerned.

ALEXANDER T. DEMETILLO, D.Eng.
Vice BAC Chairperson