



Republic of the Philippines  
**ILOILO SCIENCE AND TECHNOLOGY UNIVERSITY**

La Paz, Iloilo City

• Trunkline: (033)320-7190 • Telefax: (033)329-4274

• Website: www.isatu.edu.ph



**PROGRAM OF WORKS**

**Project Title: PROPOSED SOLAR POWERED EXTERNAL LIGHTING POLES FOR WALKWAYS, CAR PARK, MINI FOREST, AND ACCESS ROAD**

**Location: ISAT-U, Main Campus, Iloilo City Campus, Burgos St., La Paz, Iloilo City**

**Total Project Electrical Cost : P0.00**

Project Description:		Implementation Mode		Lump Sum Contract		
<b>Supply, Installation, Testing &amp; Commissioning of new Solar PV Panels and Lighting Poles as specified on each item below, complete and full operational.</b>		Project Duration		120 Calendar Days		
		Equipment Needed		Listed in the Bidding Document		
		Technical Personnel		Electrical Engineer, Certified PV Specialized Technician		
Item	Scope of Work	% Weight	QTY.	Unit	Unit Price	Total Amount
1	<b>Supply, installation, testing and commissioning of the following:</b>					
1.1	LED Street lighting luminaire, Cobra Type Power Consumption: 40W Rated Voltage: 12Vdc Lifespan: 50,000 long life time hours Efficacy: 100Lm/Wt CRI: 80 Cct: 6,000Kelvin Ingress Protection: IP67 Material: Die Cast Aluminum body. Type: COB- single Beam Angle: 140 deg.		28	assy.		
1.2	Solar PV Module Type: Polycrystalline Pmax: 200Wp Vmp: 34.4V IMP: 5.8 Amps Voc: 43.2 V Isc: 6.39 Amps Operating Temp.: -40 to +85° C Certification: TUV, ISO, IEC		25	assy.		
1.3	Solar Street Light Controller Type: MPPT Current: 10A Voltage: 12V/24V		28	assy.		
1.4	Batteries, 200AH, 12V, Deep Cycle (average at 45% discharge) Lead- Acid AGM, maintenance free		25	assy.		
1.5	Steel Lighting Pole Type 1: Type: Tapered 4"/3" diameter Finish: Hot Dipped Galvanized after finish Material: G.I. Steel Thickness: Schedule 40 Height: 4.5meter (10') Base Plate: 12mm Arm: Single 0.5M		6	assy.		

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Item	Scope of Work	% Weight	QTY.	Unit	Unit Price	Total Amount
1.6	Steel Lighting Pole Type 2: Type: Tapered 4"/3" diameter Finish: Hot Dipped Galvanized after finish Material: G.I. Steel Thickness: Schedule 40 Height: 6 meter (20') Base Plate: 12mm Arm: Single 1.5M		13	assy.		
1.7	Steel Lighting Pole Type 3: Type: Tapered 4"/3" diameter Finish: Hot Dipped Galvanized after finish Material: G.I. Steel Thickness: Schedule 40 Height: 6 meter (20') Base Plate: 12mm Arm: Single 2.5M (with support braces)		6	assy.		
1.8	Cast-in-situ Reinforced Concrete Post Pedestal/ base foundation. with hot dipped galvanized anchor bolts as shown on the drawing Finish: Painted white Shape: Trapezoidal, top- 300 x 300mm		17	assy.		
1.9	Excavation, backfilling, and restoration of structures /walkways/ roads/ pavements.		1	lot		
1.10	PV roof mounting brackets complete with accessories		1	lot		
1.11	Batteries & Controller Room No. 1 for 17 sets of PV system, complete with prepainted steel roofing, epoxy painted louvered walls & doors with padlocks, rack mounting, support and brackets & other necessities to complete the work. Paint color shall match the adjacent Building color. Drawings to be submitted for approval prior to construction. Location at Guiang building		1	lot		
1.12	Batteries & Controller Room No. 2 for 8 sets of PV system, complete with prepainted steel roofing, epoxy painted louvered walls & doors with padlocks, rack mounting, support and brackets & other necessities to complete the work. Paint color shall match the adjacent Building color. Drawings to be submitted for approval prior to construction. Location beside Library's fire pump room		1	lot		

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Item	Scope of Work	% Weight	QTY.	Unit	Unit Price	Total Amount
1.13	2 x 6mm <sup>2</sup> Tin coated copper 1kV DC PV cables complete with hot dipped galvanized perforated cable tray with cover, cable connectors and accessories		1	lot		
1.14	Lighting pole circuit conductors 2-5.5mm <sup>2</sup> THWN/CU. complete with conduits/containment, warning tape, and accessories.		1	lot		
1.15	Grounding system 19mmØ x 1.5M copper clad steel ground rod, complete with grounding conductor 8.0mm <sup>2</sup> CU./THHN (GREEN) and grounding busbar/terminal block, concrete inspection pit, ground rod clamp. Location beside the PV Room		2	set		
1.16	Concrete encased duct bank at road crossing, 500mm below finish road level, including restoration of concrete road, with warning tape (see detail)		1	lot		
1.17	Testing & Commissioning		1	lot		
<b>TOTAL WORK ITEM COST:</b>						
<b>BREAKDOWN OF WORK ITEM COST</b>						
<b>DIRECT COST</b>				<b>Total Material Cost</b>		
				<b>Total Equipment Cost</b>		
				<b>Total Labor Cost</b>		
				<b>Total Direct Cost</b>		
<b>INDIRECT COST</b>				<b>O.C.M Cost</b>		
				<b>Profit</b>		
				<b>Tax</b>		
<b>TOTAL WORK ITEM COST</b>						

Prepared by:

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Name & Signature of Bidder