

**NIGER DELTA DEVELOPMENT  
COMMISSION (NDDC)**

**BILL OF ENGINEERING MEASUREMENT  
AND EVALUATION (BEME)**

FOR

**THE EMERGENCY INSTALLATION OF SOLAR STREET LIGHTS AT  
NIGERIAN NAVY SCHOOL OF SUPPLY AND TRANSPORT AND  
ENVIRONS**

IN

BENIN LGA

EDO STATE

CLIENT:

NDDC

PLOT C5/C6 EASTERN BY-PASS

PORT HARCOURT.

AUGUST, 2024

  
28/8/24





**NIGER DELTA DEVELOPMENT COMMISSION**  
**BILL OF ENGINEERING MEASUREMENT AND EVALUATION FOR THE EMERGENCY INSTALLATION OF**  
**SOLAR STREET LIGHTS AT NIGERIAN NAVY SCHOOL OF SUPPLY AND TRANSPORT AND ENVIRONS**  
**BENIN, EDO STATE**

S/N	DESCRIPTION	QTY	UNIT	RATE(N)	AMOUNT
<b>A</b>	<b>PRELIMINARIES</b>				
1	Line route survey	5825	m	500.00	2,912,500.00
2	Clearing of shrubs on line route	8738	m <sup>2</sup>	450.00	3,932,100.00
3	Allow for the IN-HOUSE design, Survey & production of working drawings. Contractor to report to the Office of the Director, UIDW in view of Section 6 Contract award letter.		Lot		3,000,000.00
4	Security of stored and installed materials		Lot		1,200,000.00
5	Allow for Quality Assurance Compliance Monitoring / Consultancy by PMS Directorate.		Lot		2,800,000.00
6	Allow for project signpost	2	No	300,000.00	600,000.00
7	Allow for photograph		PS		150,000.00
<b>Preliminaries carried to summary</b>					<b>14,594,600.00</b>

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S/N	DESCRIPTION	QTY	UNIT	RATE(N)	AMOUNT
<b>B</b>	<b>SOLAR MATERIALS</b>				
1	<p><b>ALL-IN-ONE Integrated Monocrystalline Solar street light (100W) Panel comprising of;</b>  <b>Solar Panel Max. Power of 36V 160W with a life time of minimum of 5yrs.</b>  <b>Battery type: Life Battery ≥ PO4 3.2V-3.8V, 80AH, Lithium Battery designed life ≥ 5yrs.</b>  <b>LED Max. Power: 12V 100W, DC LED Lamp All light pattern 9600lm; in High purity; Die-Cast Aluminum Alloy housing and Corrosion Proof (IP 65 waterproof level). Input voltage of 12V with a built in LED driver with constant current and power efficiency &gt; 90% with high brightness. LED life time of 25,000hours, Lumen 16000LM/160-210LM/W.</b>  <b>Sensor Control: Radar motion Sensor, with Max. efficiency for mounted height 8m, power output of 12V, Power Tolerance ±5%; Operating humidity ≥90% RH</b>  <b>N/B TYPES: (FELICITY SOLAR [ D2 SERIES]; ANERN SOLAR [SLZ SERIES]; BLUE CARBON EXULTED BRAND; EVERLIGHT SOLAR BRAND; PBT SOLAR BRAND; WAKATEX SOLAR BRAND; AKT SOLAR BRAND; BLUE CAMEL BRAND.); SMS AIO SOLAR BRAND</b></p>	233	<b>PC</b>	802,425.00	186,965,025.00
	<b>SOLAR MATERIALS TO SUMMARY</b>			<del>8</del>	186,965,025.00

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**BENIN, EDO STATE**

S/N	DESCRIPTION	QTY	UNIT	RATE(N)	AMOUNT
<b>C</b>	<b>CONSTRUCTION MATERIALS</b>				
1	8m single arm galvanised streetlight poles painted in Blue and White colour as provided in the drawings. The name of the Contractor; NDDC and serial number should be stamped on it.	233	No	175,000.00	40,775,000.00
2	4mm <sup>2</sup> bare copper earth cable	233	m	5,250.00	1,223,250.00
3	Galvanised steel earth rods (600mm length)	233	No	7,700.00	1,794,100.00
4	Excavate for plinth 750mmX750X1000mm deep.	131.06	m <sup>3</sup>	3,048.50	399,536.41
5	Sawn formwork to sides of concrete plinth 750mmX750mm wide 200mm high	139.80	m <sup>2</sup>	4,900.00	685,020.00
6	Provide and place mass in-situ concrete grade 20 (25mm aggregate in concrete plint)	104.85	m <sup>3</sup>	130,480.00	13,680,828.00
7	Allow for reinforcement in concrete plinth 8 - 16mm diameter; rate inclusive of threading of 16mm holding down bolt with nuts.	233	Set	52,500.00	12,232,500.00
<b>Construction materials to summary</b>					<b>70,790,234.41</b>

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 BENIN, EDO STATE**

GENERAL SUMMARY		AMOUNT
A	PRELIMINARIES	14,594,600.00
B	SOLAR MATERIALS	186,965,025.00
C	CONSTRUCTION MATERIALS	70,790,234.41
<b>SUB-TOTAL</b>		<b>272,349,859.41</b>
	TESTING AND COMMISSIONING	LS 1,000,000.00
	TRANSPORTATION	LS 2,723,498.59
<b>TOTAL</b>		<b>276,073,358.00</b>
	ADD 7.5% VAT	20,705,501.85
	CONTINGENCY	1,221,140.15
<b>GRAND TOTAL</b>		<b>298,000,000.00</b>

N/B: PAYMENT IS BASED ON PHYSICAL MEASUREMENT OF ACTUAL WORKS EXECUTED.

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# SCOPE OF WORK FOR

## THE EMERGENCY INSTALLATION OF SOLAR STREET LIGHTS AT NIGERIAN NAVY SCHOOL OF SUPPLY AND TRANSPORT AND ENVIRONS, BENIN, EDO STATE

- 1 Nos of 8 metres Galvanized Poles 233 Poles
- 2 Span 25.00 Metres
- 3 Concrete Foundation Grade20 25mm Aggregate
- 4 16mm diameter threaded holding down bolt 1,000mm long welded together
- 5 Pole are to be placed 1.5m minimum set back from Power Line
- 6 ALL-IN-ONE Integrated Monocrystalline Solar street light (100W) Panel comprising of; Solar Panel, Battery, LED and Sensor

N/B TYPES: (FELICITY SOLAR [ D2 SERIES]; ANERN SOLAR [SLZ SERIES]; BLUE CARBON EXULTED BRAND; EVERLIGHT SOLAR BRAND; PBT SOLAR BRAND; WAKATEX SOLAR BRAND; AKT SOLAR BRAND; BLUE CAMEL BRAND.), SMS AIO SOLAR BRAND

