



PRESIDENCY UNIVERSITY

Private University Estd. in Karnataka State by Act No. 41 of 2013

WORK ORDER

Ref: **PRESIDENCY UNIVERSITY / CENTRAL ADMIN. CANOPY ROOF TOP / 230kWp SOLAR / WO-025 / 2022.**
Date: 21.03.2022.

M/s. **Orb Energy Private Limited,**

95, Digital Park Road,

2nd Stage,

Yeshwantpura,

BENGALURU – 560022.

Email: kn.ramesh@orbenergy.com

Tel.: +91 80 67711300, Mobile +91 7760637874

GSTIN: 29AAACO8596J1ZO

Kind Attn.: Mr. K.N. Ramesh, Vice President – PV Projects.

Subject: Work order for “Central Admin. Canopy Roof Top Solar for 230 kWp” as described in attached BOQ-Annexure at Central Admin. Canopy Roof Top, for M/s. Presidency University, at Presidency University, Ittagalpura, Rajanakunte, Yelahanka, Bengaluru - 560064.

Owner: M/s. Presidency University.

We are pleased to inform you and award the Work Order for “Central Admin. Canopy Roof Top Solar for 230 kWp” at Central Admin. Canopy Roof Top, Presidency University, Ittagalpura, Rajanakunte, Yelahanka, Bengaluru - 560064 for M/s. Presidency University, (hereafter referred to as “Owner”) to M/s. Orb Energy Pvt. Ltd. (hereafter referred to as “Contractor”) in accordance with the Terms and Conditions of this Work Order, Technical Specification, Bill of Quantities and Drawings.

The scope of works to be executed under this work order includes execution of “Central Admin. Canopy Roof Top Solar for 230 kWp” as specified in the BOQ-Annexure.

The Total contract amount of **Rs. 1,05,00,000 /- (Rupees One Crore Five Lakh Only)**. This order amount includes applicable, Octroi, Insurance, Transportation, Loading and Unloading charges, Lead & Lifting Charges, Safe Material delivery at the designated place, Safety and Quality requirements etc. The Item wise Scope of Work, Quantities, Rates and Consequent Values are as per Bill of Quantities (BOQ) attached here to as Annexure.

The applicable Goods Service Tax (GST) and any other taxes shall be calculated and paid extra based on standard Govt. norms.

The difference, if any, in tax calculations as per prevailing norms, shall be paid or recovered as per applicable proportions / government norms against submission of required documents from the vendor.

You and Your Company shall perform your duties and responsibilities and discharge your obligations, under this Work Order to our full satisfaction in respect of all critical project control parameters like quality and timelines for the completion of project etc.

City Office : University House, 8/1, King Street, Richmond Town, Bengaluru - 560025

Campus: Presidency University, Ittagalpura, Rajanakunte, Yelahanka, Bengaluru - 560064

Phone : +91 080 23093500 Email : info@presidencyuniversity.in

URL : www.presidencyuniversity.in

REGISTRAR



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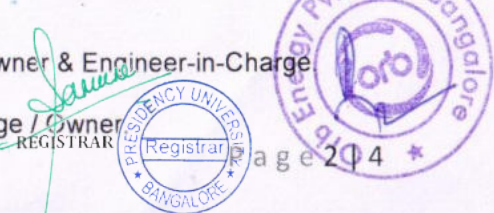
1. **Scope of Works:** As mentioned in the Annexure – Bill of Quantities.
Contractor shall coordinate with other Contractors working at construction site for hurdle less performance of the contract.
2. **Mobilization Period:** Immediate
3. **Commencement of Work:**
The date of commencement of work shall be as immediately from the date of release of Work order.
4. **Schedule / Duration of work and penalty:** Work shall be completed as agreed within Two Months, to the satisfaction of Architects / Engineer-in-Charge / Owner.
5. **Bill of Quantities:** The quantities as set out in the Bill of Quantities in the Annexure attached.
6. **Defect Liability Period: Not Applicable.**
7. **Contract Performance Guarantee: Not Applicable.**
8. **Payment Terms:**
 - **Advance: Nil**
 - **Material Delivery**
 - I. **50% Against Material readiness and Inspection at Orb's Factory on Pro Rata Basis, after Certification by Engineer-in-Charge.**
 - a) 10% (excluding Tax) on 50% Contract Value, against Material readiness and Inspection of MMS – Module Mounting Structure at Orb's Factory before dispatch.
 - b) 60% (excluding Tax) on 50% Contract Value, against Material readiness and Inspection of Solar Modules at Orb's Factory before dispatch.
 - c) 10% (excluding Tax) on 50% Contract Value, against Material readiness and Inspection of Inverter at Orb's Factory before dispatch.
 - d) 5% (excluding Tax) on 50% Contract Value, against Material readiness and Inspection of BOS - Balance Materials of System at Orb's Factory before dispatch.
 - II. **35% On Delivery of Materials at Site on Pro-Rata Basis, after Certification by Engineer-in-Charge.**
 - a) 10% on 35% Contract Value (along with 100% GST), against Delivery of MMS – Module Mounting Structure at Presidency University.
 - b) 60% on 35% Contract Value (along with 100% GST), against Delivery of Solar Modules at Presidency University.
 - c) 10% on 35% Contract Value (along with 100% GST), against Delivery of Inverter at Presidency University.
 - d) 5% on 35% Contract Value (along with 100% GST), against Delivery of BOS - Balance Materials of System at Presidency University.
 - **Installation: 10% Against Installation, Testing, Commissioning & Completion of System.**
 - **Balance: 5% against receipt of First Solar Bill from Owner or 3 months from the date of commissioning whichever is later.**
9. **Retention Money: Not Applicable.**
10. **Billing Cycle for Running Account Bills:** As per above Payment Terms and Certification by Engineer-in-Charge.
11. **Certification of Bills:**
 - a) Running Account Bills / Final Bill: With all necessary supporting documents in full and certification by Engineer-in-Charge / PGI.

Supporting Documents for Bills Certification.

- 1) Material Delivery Challans in Original signed by Security of Owner & Engineer-in-Charge
- 2) Manufacturer's Test Certificates: Original or Photocopy.
- 3) Joint Measurement Records duly signed by Engineer-in-Charge / Owner

Aravind B.

[Handwritten signature]



Supporting Documents for Final Bills Certification:

- 1) Material Delivery Challans in Original signed by Security of Owner & Engineer-in-Charge.
- 2) Manufacturer's Test Certificates: Original or Photocopy.
- 3) Testing & Commissioning Report (after installation of the Solar Plant).
- 4) Operation & Maintenance Manuals (after installation of the Solar Plant).
- 5) Guarantee / Warranty of the system / equipment supplied (after installation of the Solar Plant).
- 6) As Built Drawing (after installation of the Solar Plant).

12. Liquidated Damages: (LD) - Not Applicable.

13. Child Labour is strictly prohibited and Contractor shall not employ any Labour under 18 year of age at construction site.

14. Health / Safety / Housekeeping: The Contractor must strictly maintain good health, safety and housekeeping at project site and should adhere to agreed terms of this work order and as per the health & safety policy manual.

Owner shall not be responsible for any accidents, which occurs at site. Contractor shall take all precautionary measures & shall follow all the necessary safety standards as prescribed in the IS Standards for the same. Safety procedures shall be strictly complied with during the course of execution of works. Owner shall not be held responsible for or shall it indemnify any losses arising out of or due negligence of Contractor or his workmen.

15. No extra amount will be paid for Sunday / Holiday / Over-time. In case of necessity, the Contractor has to carry-out the work in such a manner so as to complete the project with in the time frame stipulated. Also the National Holidays shall strictly be observed for the complete duration of the project.

16. Contractor shall keep all information / data / details / drawings / plans which are given for execution of your scope of works, in strict confidence and vendor shall not disclose / pass-on / reveal any such information to any third party / agencies. Similarly, Contractor shall keep all documents given to him against this order in strict confidence. Contractor shall coordinate with other civil and service contractors working at construction site for hurdle less performance of the contract.

17. Extra / Non tendered items / Additional Scope Items:

For all items of work, the contractor should start execution of the works only after the written approval from Owner representative / Engineer-in-Charge.

Rate analysis for Non - Tendered items to be submitted as mentioned below

- Cost of materials landed at site supplied by the Contractor, at **quoted** rates, actually incorporated in the work.
- Cost of labour at the site on the work, at prevailing rates of Labour.
- 2% for the use of any plant and machinery at Site, Power, Water, including Transport of Material - **Deleted**.
- 15% of the actual cost in respect of all above points and towards Contractor's establishments, safety, Overheads and Profits - **Deleted**.
- Taxes shall be paid extra as applicable

18. **Water:** The contractor shall be provided with source of free Water at one point within the site.

19. **Electricity:** The contractor shall be provided with source of free Electricity at one point within the site.

20. ESI and PF:

- a. Orb Energy shall share, Company PF Registration and Company ESI Registration Certificate available for in-house staff.
- b. Orb Energy shall share, any Group Insurance taken if any Contract Labours are hired, at the time of installation.

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21. **Bank details:**

Orb Energy Pvt Ltd.,
Bank : ICICI Bank
A/c No. : 015905003450
Branch: Vijayanagar
IFSC Code: ICIC0000159

22. **Indemnity:**

The Contractor agrees and undertakes to indemnify and hold harmless the OWNER's organization / Trust, its directors, officers, employees and agents, from and against any actions, claims, demands, proceedings, fines, penalties, liabilities, non-compliance of statutory requirements, loss, cost, damages or expenses sustained either by the Company or any third party as a result of any breach by the contractor of any law, representation, obligations warrantee's or covenants contained in this Agreement or default or negligence or improper performance or disturbance caused by itself or by any of its sub-contractors, suppliers or associates in connection with the Works and/or the Project.

23. **Termination of Contract by Client:** If at any stage after the issue of the letter of award, it is noticed that there is delay of more than five days from the schedule as mentioned in relevant clause, Owner will have the option to terminate the contract without assigning any reasons and the decision of the Engineer-In-charge will be final.

24. **Foreclosure:** If at any time after accepting of the quotation the contractor shall decide to abandon or reduce the scope of the work or any part of the works to be carried out by the Contractor, Owner shall give notices in writing to that effect to the Contractor. Contractor shall have no claim whatsoever consequent to abandoning and thus resulting in foreclosure of the whole or part of works upon such intimation with sufficient notice, this contract shall stand cancelled and terminated.

25. **Arbitration:** In event of any dispute arising between parties hereto during the execution of works or thereafter in connection with the validity, interpretations, implementation, alleged breach or provisions of the order, parties will attempt in the first instance to resolve such disputes through friendly consultation within 60 (sixty) days from the commencement of this discussions. In the event not getting resolved, then either party may refer the dispute for resolution by binding arbitration. Appointment of arbitrators and arbitration proceedings shall be in accordance with the rules of latest Indian Arbitration Act and Proceedings shall be in Bengaluru, India. The cost of arbitration arises out of the arbitration will be borne by both the parties in equal parts.

26. Income Tax as per statutory rules will be deducted from your payments and TDS certificate will be issued by Owner.

27. This work order is issued in duplicate and the duplicate copy shall be returned to Owner duly signed-in as token of your acceptance.

Yours Faithfully,

For M/s. Presidency University



Authorized Signatory

Accepted,

For M/s. Orb Energy Private Limited



Authorized Signatory

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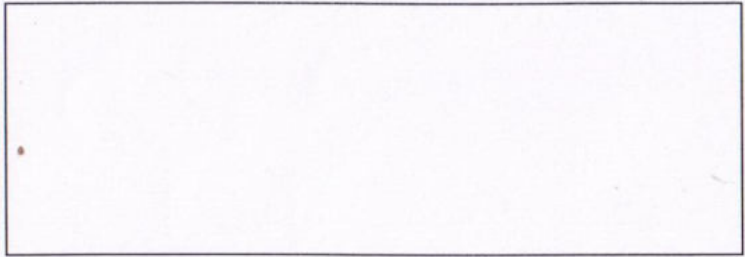






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PU: PRESIDENCY UNIVERSITY
 Ittagalpur, BENGALURU
 Central Admin. - Canopy Roof Top
 Roof Top Solar System:
 String Inverter with Optimizer Technology.
 BOQ: Bill of Quantities



Sl.No	Particulars	Description	Make	Amount
I.	PROJECT SUMMARY			
	General Scope:	Design, Engineering, Supply, Installation & Commissioning.		
	Project Scope:	To integrate solar power on LT side with all necessary approvals as per KERC guidelines and BESCOM.		
	Roof Type	RCC Flat Roof		
	Roof Area	23100 sq.ft		
	Grid	On Grid Plant with Net Metering.		
	Capacity Rooftop (approx.): kWp	230 kWp		
	Nominal Rated Power	440 Wp		
II.	COMPLETION TIME: Months.	2 Months		
III.	WARRANTY			
	Warranty in Years - PV Module Manufacturing.	10 Years		
	Warranty in Years - Module Performance.	25 Years		
	Warranty in Years - Inverter.	12 Years		
	Warranty in Years - Optimizer.	25 Years		
	Warranty in Years - Cables	1 Year		
	Warranty in Years - Other Equipments	3 Years		
IV.	OPERATION & MAINTENANCE			
	After Sales Service.	One Year Free (excluding Module Cleaning).		
	Monitoring.	Remote Monitoring of Performance.		
	Preventive Maintenance Visits.	3 Free Preventive Maintenance Visits.		
	Trouble Shooting.	Free call-out in the event of any issues / trouble-shooting during first year of operation.		
A.	MATERIALS			
1.0	Mounting Structure & Interconnection.	G I with Powder Coating. Foundation in Cement Concrete. Max. wind load 150 kmph (50m/sec).	Orb Energy.	
2.1	Solar Panels	Si - Crystalline. Mono PERC. 440 Wp, PV Array. Certification: IEC 61215, IEC 61730.	Orb Energy. Thicker Al Frames. Anti-reflection coated cells. Upto 20.3% efficiency.	
2.2	Inverters	88kW x 1 nos. plus 55 kW 2 nos. Built-in MPPT Charge Controller. Easy to use Digital Display. Dedicated ACDB and LT Panel for Solar Meter and Cable Termination from Inverter.	Solar Edge. Grid Tied String Inverter.	
2.3	Optimizers	Included. P 950 / Equivalent.	Solar Edge.	
3.1	Electrical Accessories.	Distribution Boxes, Conduits, Clamps etc.		
3.2	Electrical Cables: Module Interconnection.	4sqmm DC Copper Cable	Polycab	
3.3	Electrical: DC Cables.	4 sqmm DC Copper Cable	Polycab	
3.4	Electrical: AC Cables.	Included	Polycab	
3.5	Electrical Cables: String Inverter-AC Combiner Box.	Included.	Polycab	
3.6	Electrical Cables: AC Combiner Box - Building ACDB.	Included.	Polycab	
3.7	Client ACDB changes to suit requirement.	Orb shall terminate from Presidency ACDB to Orb LT Panel. No changes shall be made in Presidency ACDB.		

Handwritten signatures and initials in blue ink.

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 BANGALORE
 Orb Energy Pvt. Ltd. - Bangalore

Sl.No	Particulars	Description	Make	Amount
3.8	Metering Cubicles	Part of LT Panel Item 3.9.		
3.9	LT Panel	MCCB + RHOM (Rotary Handle Operating Mechanism) MCB SPD CTs Solar Meter Busbar Metering Cubicle / Chamber (Solar Generation Meter)	Orb Energy Make MCCB, MCB - C&S Electric / Schneider / Equivalent, CT - KALPA / Equivalent Busbar - Reputed SPD - Phoniex / Equivalent Meter - L&T / Genus (BESCOM approved)	
4.1	Remote Monitoring System / Data Logger with Ethernet Cable connection.	Included.	Orb Energy	
4.2	Lightning Arrestor.	Covering all Solar Panels. Conventional Spike Type.	JEF / Equivalent Make	
4.3	Earthing.	Earthing Rod with Poly platic Chamber and GI strip.	JEF / Equivalent Make	
4.4	Weather Station.	Includes Radiation Sensor, Ambient Temp Sensor.	BLUE'LOG XM/XC / Equivalent Make	
	MATERIALS: TOTAL			Included
	B. SERVICES			
1.0	Scope	Supply, Packing and Forwarding, Transportation, Unloading, Installation, Testing and Commissioning.		
2.0	Net-Metering & BESCOM / CEIG Approval / Govt. Approvals.	Included.		
3.0	Material Lifting Equipments, Accessories.	Included.		
4.0	Freight/Transportation, In-Land Loading & Un-loading.	Included.		
5.0	Insurance.	Transit Insurance for Materials.		
	SERVICES: TOTAL			Included
	COMMERCIALS			
A.	MATERIALS: TOTAL			Included
B.	SERVICES: TOTAL			Included
A+B	MATERIAL & SERVICES: TOTAL			1 05 00 000.00
	Cost Price Per Watt without Tax (pprox.)			45.65
	GST @ 12% on 70% of total system price.		12.00%	8 82 000.00
	GST @ 18% on 30% of total system price.		18.00%	5 67 000.00
	TOTAL including GST			1 19 49 000.00
C.	Additional Cost excluding GST (Approx.)			
1.0	Plumbing Lines for Water Cleaning System.			As Per Actuals
2.0	AC Cables			As Per Actuals
3.0	Trench Work & Cable Laying to Presidency HT Cubicle.			As Per Actuals
4.0	Presidency HT Cubicle Alteration, ACDB changes to suit requirement (if any reqd.)			As Per Actuals

Ananth B

Registrar
REGISTRAR
PRESIDENCY UNIVERSITY
BANGALORE

