<u>Day Time Net Metering (On Grid) Solar System</u> <u>For Administrative, BS, Ma Library, Physics, A Block, Post Graduate Block</u>

S/No	Name of Equipment	Specifications	Required Brand	Quantity	Unit Price (w/o GST)	17% GST	Unit Price with GST	G. Total (with GST)
1.	PV Panels	Electric Specification STC rated output (Pmpp)* 320 Wp Rated voltage (Vmpp) at STC 37.02 Rated current (Impp) at STC 8.65 Open circuit voltage (Voc) at STC 45.45 Short circuit current (Isc) at STC 9.25 Module efficiency 16.5% Rated output (Pmpp) at NOCT 223.5 Wp Rated voltage (Vmpp) at NOCT 33.80 V Rated current (Impp) at NOCT 6.61 A Open circuit voltage (Voc) at NOCT 41.70 V Short circuit current (Isc) at NOCT 7.15 A Temperature coefficient (Pmpp) - 0.408%/°C Temperature coefficient (Isc) +0.050%/°C Temperature coefficient (Voc) - 0.311%/°C Normal operating cell temperature (NOCT) 46±2°C Maximum system voltage (IEC/UL) 1000VDC or 1500VDC Number of diodes 3 Junction box IP rating IP 67 Maximum series fuse rating 15 A Mechanical Specification Outer dimensions (L x W x H) 1960 x 992 x 40 mm	International Recognized Brands (Longi, JA Solar, Jikiko) Or Equivalent	As per Actual Space				

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		77.17 x 39.06 x 1.57 in Frame technology Aluminum, silver anodized Module composition Glass / EVA / Backsheet (white) Front glass thickness 3.2 mm / 0.13 in ① Cable length (IEC/UL) 1150 mm / 45.28 in Cable diameter (IEC/UL) 4 mm² / 12 AWG ② Maximum mechanical test load 6000 Pa (front) / 3600 Pa (back) Fire performance (IEC/UL) Class C (IEC) or Type 1 (UL) Connector type (IEC/UL) MC4 compatible Packing Specification Weight (module only) 21.9 kg / 48.28 lbs ② Packing unit 27 pcs / box Weight of packing unit (for 40 HQ container) 636 kg / 1402 lbs Number of modules per 40 HQ container 648 pcs						
2.	Inverter 60KW	Input DC Power 65000W-72000W DC input Voltage 1000v DC Input Current 120A (4x30A). Output Rated Output Power 50000W-60000W Output Power 55KVA-66KVA Output Current 80A-96A Rated Grid voltage 400V Grid Voltage Range 310-480V Grid Frequency 50GHz/60GHz Grid Frequency Range 55Hz/65Hz	International Recognized Brands Or Equivalent	08 Nos				

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		THD <2% Under the rated power Power factor >0.9 Dc current injection <0.5% System Data Max Efficiency 98.7%-98.9% Euro Efficiency 98.3%-98.5% Humidity range 0-95% Colling type Intelligent Forced air Temperature Range -25-60 °C Max Working altitude 4000m Display two line LCD/Two LEDS Communication Interface RS485/GPRS Mechanical Data Dimension 670x960x3000m Weight 75Kg Protection Class IP65 Standard Grid Connected standard NB/T32004-2013; GB/T19964-2012 Saftey Standard NB/T32004-2013;IEC 62109-1/2 Electromagnetic compatibility IEC 61000-6-2/4						
3.	Fixed Frames	12 Guage Galvanized Rust Protected frames & Fixtures for PV Panels, Strong enough and capable to withstand high speed wind long life structure	International Recognized Brands Or Equivalent	01 Nos				
4.	Local Material	Cabling, Earth wire, Earthling Rod, Fuses on DC, Breaker on AC Bus bar Panel Bus bar Glind nut 25mm	International Recognized Brands Or	01 Nos				

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PVC connector 100 amp Thimble 16mm Tape (Red+Yellow+Blue+Black) BREAKER + FUSE + SPD MCB 3 Pole 16 Amp MCB 4 Pole 100 Amp SPD AC Side Cable DC 4mm Cable (bus bar to inverter) 4 Core 6mm Cable (meter to bus bar)4 core 10mm EARTHING Cable (Flexible)10mm Yellow Green Clamp1/2" Lightning Arrester Rod 1/2" x 5' Saddle7mm PIPE Cable tie 6" Flexible pipe1"+1.5" PVC pipe 1" PVC SOCKET + bend + Tee1" Saddle (Steel)1" PV MC4 connector PV panel Astronergy 320W Panel Nut, Bolt & Washers ¼, ¾ PV Structure Fix Frame (2 panel) Legs+Feet	Equivalent (Pakistan Cable)					
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		Rawal Bolt 8mm x 3" Silicon Large INVERTER Box for breaker Box for Disconnect Switch Inverter Rawal plug Screw Wooden screw 1.5" Net Metering Plate						
5.	Installation	Installation of Panel, Testing & Commissioning. Complete in all respect	Local	01 Nos				
6.	Net Metering License	Net Metering License and Bi Directional Meter IESCO Fee.	Local	01 Nos				

(With Environmental & Monitoring Systems)