

**ANNEX - C**  
**TENDER REF: PAKIS/RFQ/24/039**  
**FOR SOLARIZATION OF DHQ ALPURI, SHANGLA, KHYBER PAKHTUNKHWA**  
**FINANCIAL OFFER FORM**

SR #	Facility Name	Province	District	Total Installation Cost as per BOQ (PKR)
1	MAIN BLOCK	Khyber Pakhtunkhwa	Shangla	
2	EMERGENCY BLOCK	Khyber Pakhtunkhwa	Shangla	
3	DENTAL WARD	Khyber Pakhtunkhwa	Shangla	
4	MEDICAL WARD	Khyber Pakhtunkhwa	Shangla	
5	SURGICAL WARD	Khyber Pakhtunkhwa	Shangla	
6	X-RAY BLOCK	Khyber Pakhtunkhwa	Shangla	
7	GYNAE BLOCK	Khyber Pakhtunkhwa	Shangla	
<b>GRAND TOTAL AMOUNT (PKR)</b>				

<b>Payment terms:</b> Acceptance of UN payment terms (i.e. 30 days after installation at the required destination and upon receipt of payment documents)	Yes	No
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Financial offer must be submitted in a single currency i.e. PKR.

Price of your Offer shall be inclusive of installation, in-land transportation and all associated costs.

**Cost of Solar Equipment (Solar Panels, Inverters, Batteries) should not be included in the installation cost as these items will be provided by UNHCR.**

Bid Validity: 60 Days Acceptable

Yes	No
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Bidder: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Designation: \_\_\_\_\_

Official stamp: \_\_\_\_\_

**BILL OF QUANTITY FOR MAIN BUILDING OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 70,568 W (Approx. 590 W x 120)</b>				
2	<b>ON-GRID HYBRID INVERTERS: 90kVA (30 kVA x 3)</b>				
3	<b>Lithium Ion Battery: 75 kWh (25 kWh x 3)</b>				
a	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1.00		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	70,568		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	70,568		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	1400		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	12		
c	100 Amp 1000V DC Breaker b/w inverter & battery bank	No	3		
d	AC Cables 25 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	80		
e	AC Cables 70 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	20		
f	200 Amp 4-P MCCB for both Incoming and Outgoing AC Disconnect Box	No	2		
g	100 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	6		
h	2 Pole Surge Protection device 60 kA at DC inputs	No	12		
i	4 Pole Surge Protection device 60 kA at AC inputs	No	3		
j	Supply, Installation and Commissioning of 18 SWG Powder Coated DC Disconnect switch box for housing all DC Circuit Breakers and DC Surge Protective Devices having Grounding Busbar. All circuits must be properly tagged as per site installations.	No	1		
k	Supply, Installation and Commissioning of Three Phase AC Combiner Box made of 18 SWG with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase and Separate Bus Bars for each Phase, Neutral and Earth Connection including CTs for housing One Incoming Circuit Breakers MCCB 200 ATP and Three Outgoing Circuit Breaker MCCB 100 ATP, AC Surge Protective Devices complete in all aspects. Note: All circuits must be properly tagged as per site installations	No	2		
l	Changeover Switches 200 Ampere made of Copper	No	2		
m	S/I Supply and Erection MC4 connector (TUV Approved)	No	50		
n	Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 16 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	2		
o	Inauguration/Sign Board	No	1		
p	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6 Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
	<b>Grand Total (PKR)</b>				-

**BILL OF QUANTITY FOR EMERGENCY BUILDING OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 10,567 W (Approx. 590 W x 18)</b>	<b>TO BE PROVIDED BY UNHCR</b>			
2	<b>ON-GRID HYBRID INVERTERS: 10kVA (10 kVA x 1)</b>				
3	<b>Lithium Ion Battery: 9.8 kWh (9.8 kWh x 1)</b>				
a	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	10,567		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	10,567		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	360		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	2		
c	250 Amp DC Breaker b/w inverter & battery bank	No	2		
d	AC Cables 6 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	40		
e	32 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	2		
f	2 Pole Surge Protection device 60 kA at DC inputs	No	2		
g	4 Pole Surge Protection device 60 kA at AC inputs	No	1		
h	Supply, Installation and Commissioning of 18 SWG Powder Coated AC & DC Disconnect switch box for housing all AC & DC Circuit Breakers and Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations.	No	1		
i	Three Phase Changeover Switches 50 Ampere made of Copper	No	2		
j	S/I Supply and Erection MC4 connector (TUV Approved)	No	12		
k	Lightening Arrester having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 6 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	2		
l	Inauguration/Sign Board	No	1		
m	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
<b>Grand Total (PKR)</b>					-

**BILL OF QUANTITY FOR DENTAL WARDS OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 8,064 W (Approx. 590 W x 14)</b>	<b>TO BE PROVIDED BY UNHCR</b>			
2	<b>ON-GRID HYBRID INVERTERS: 10kVA (10 kVA x 1)</b>				
3	<b>Lithium Ion Battery: 9.8 kWh (9.8 kWh x 1)</b>				
a	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	8,064		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	8,064		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	300		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	2		
c	250 Amp DC Breaker b/w inverter & battery bank	No	2		
d	AC Cables 6 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	50		
e	32 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	2		
f	2 Pole Surge Protection device 60 kA at DC inputs	No	2		
g	4 Pole Surge Protection device 60 kA at AC inputs	No	1		
h	Supply, Installation and Commissioning of 18 SWG Powder Coated AC & DC Disconnect switch box for housing all AC & DC Circuit Breakers and Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations.	No	1		
i	Three Phase Changeover Switches 32 Ampere made of Copper	No	2		
j	S/I Supply and Erection MC4 connector (TUV Approved)	No	8		
k	Lightening Arrester having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 6 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	1		
l	Inauguration/Sign Board	No	1		
m	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
<b>Grand Total (PKR)</b>					-

**BILL OF QUANTITY FOR MEDICAL WARDS OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 6,762 W (Approx. 590 W x 12)</b>	<b>TO BE PROVIDED BY UNHCR</b>			
2	<b>ON-GRID HYBRID INVERTERS: 10kVA (10 kVA x 1)</b>				
3	<b>Lithium Ion Battery: 9.8 kWh (9.8 kWh x 1)</b>				
a	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	6,762		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	6,762		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	300		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	2		
c	250 Amp DC Breaker b/w inverter & battery bank	No	2		
d	AC Cables 6 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	50		
e	32 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	2		
f	2 Pole Surge Protection device 60 kA at DC inputs	No	2		
g	4 Pole Surge Protection device 60 kA at AC inputs	No	1		
h	Supply, Installation and Commissioning of 18 SWG Powder Coated AC & DC Disconnect switch box for housing all AC & DC Circuit Breakers and Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations.	No	1		
i	Three Phase Changeover Switches 32 Ampere made of Copper	No	2		
j	S/I Supply and Erection MC4 connector (TUV Approved)	No	8		
k	Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 6 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	1		
l	Inauguration/Sign Board	No	1		
m	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
<b>Grand Total (PKR)</b>					<b>-</b>

**BILL OF QUANTITY FOR SURGICAL WARDS OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 7,392 W (Approx. 590 W x 13)</b>	<b>TO BE PROVIDED BY UNHCR</b>			
2	<b>ON-GRID HYBRID INVERTERS: 10kVA (10 kVA x 1)</b>				
3	<b>Lithium Ion Battery: 9.8 kWh (9.8 kWh x 1)</b>				
a	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	7,392		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	7,392		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	300		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	2		
c	250 Amp DC Breaker b/w inverter & battery bank	No	2		
d	AC Cables 6 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	50		
e	32 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	2		
f	2 Pole Surge Protection device 60kA at DC inputs	No	2		
g	4 Pole Surge Protection device 60kA at AC inputs	No	1		
h	Supply, Installation and Commissioning of 18 SWG Powder Coated AC & DC Disconnect switch box for housing all AC & DC Circuit Breakers and Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations.	No	1		
i	Three Phase Changeover Switches 32 Ampere made of Copper	No	2		
j	S/I Supply and Erection MC4 connector (TUV Approved)	No	8		
k	Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 6 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	1		
l	Inauguration/Sign Board	No	1		
m	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
<b>Grand Total (PKR)</b>					-

**BILL OF QUANTITY FOR X RAY BUILDING OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 18,900 W (Approx. 590 W x 33)</b>	<b>TO BE PROVIDED BY UNHCR</b>			
2	<b>ON-GRID HYBRID INVERTERS: 20kVA (10 kVA x 2)</b>				
3	<b>Lithium Ion Battery: 19.6 kWh (9.8 kWh x 2)</b>				
b	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	18,900		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	18,900		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	600		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	4		
c	250 Amp DC Breaker b/w inverter & battery bank	No	4		
d	AC Cables 10 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	50		
g	32 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	4		
h	2 Pole Surge Protection device 60kA at DC inputs	No	4		
i	4 Pole Surge Protection device 60kA at AC inputs	No	2		
j	Supply, Installation and Commissioning of 18 SWG Powder Coated AC & DC Disconnect switch box for housing all AC & DC Circuit Breakers and Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations.	No	1		
l	Three Phase Changeover Switches 50 Ampere made of Copper	No	3		
m	S/I Supply and Erection MC4 connector (TUV Approved)	No	20		
n	Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 10 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	2		
o	Inauguration/Sign Board	No	1		
p	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
<b>Grand Total (PKR)</b>					<b>-</b>

**BILL OF QUANTITY FOR LABOUR ROOM AND GYNAE WARD OF DHQ ALPURI, SHANGLA**

S.#	Description	Unit	Qty	Unit Rate (PKR)	Total Amount (PKR)
1	<b>PV System Capacity: 22,890 W (Approx. 590 W x 39)</b>	<b>TO BE PROVIDED BY UNHCR</b>			
2	<b>ON-GRID HYBRID INVERTERS: 20kVA (10 kVA x 2)</b>				
3	<b>Lithium Ion Battery: 19.6 kWh (9.8 kWh x 2)</b>				
a	Cage and rack for housing of Battery Bank for safety and to avoid unauthorized access	No	1		
4	<b>PV Mounting Structure</b>				
a	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement	per Watt	22,890		
b	Supply and Erection of Stainless Steel Nuts and Bolts	Watt	22,890		
5	<b>Misc Items</b>				
a	Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter	R.M	800		
b	DC Breakers 32A-2P between DC combiner box and Inverter	No	6		
c	250 Amp DC Breaker b/w inverter & battery bank	No	4		
d	AC Cables 10 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB	R.M	50		
e	32 Amp 4-P MCCB for both between WAPDA & Inverter and Inverter & Load	No	4		
f	2 Pole Surge Protection device 60kA at DC inputs	No	6		
g	4 Pole Surge Protection device 60kA at AC inputs	No	2		
h	Supply, Installation and Commissioning of 18 SWG Powder Coated AC & DC Disconnect switch box for housing all AC & DC Circuit Breakers and Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), Selectable Switches showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations.	No	1		
i	Three Phase Changeover Switches 50 Ampere made of Copper	No	3		
j	S/I Supply and Erection MC4 connector (TUV Approved)	No	20		
k	Lightening Arrester having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 10 mm <sup>2</sup> Earthing Cable, all made of Copper material, and Earthing powder (as per instruction of Engineer incharge).	No	2		
l	Inauguration/Sign Board	No	1		
m	HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual.	Job	1		
<b>Grand Total (PKR)</b>					-