

The Head Office, People's Primary Healthcare Initiative, Balochistan. Admin Section Reference No.<u>PPHI-B/H.O</u> <u>BLN/2024/02/SOLAR/002</u> Dated: _____

Technical Proposal

People's Primary Healthcare Initiative (PPHI) - Balochistan

Bidding Document for the Solarization of Basic Health Unit Batezai & Niganda of District Pishin & Lajwar of District Killa Abdullah, Balochistan

NAME OF BIDDER: ____

(To be filled-in by the Bidder)

Address: Peoples Primary Healthcare Initiative (PPHI) - Balochistan House # 8-A, Jinnah Town Samungli Road, Quetta-Pakistan.

Phone: <u>081-2863620</u> Website: <u>www.pphib.org</u>

LETTER OF INVITATION FOR BIDS:

Sealed proposals are invited under the Peoples Primary Healthcare Initiative (PPHI-Balochistan) procurement rules, by the PPHI-B from Eligible Individuals/Firms/Constructors having expertise in Solarization and Registered under Pakistan Engineering Council (PEC) under relevant codes:

REQUIRED BIDDING INFORMATION	TO BE FILLED BY THE PEOPLES PRIMARY HEALTHCARE INITIATIVE (PPHI-B)
DESIGNATION OF PROCUREMENT OFFICER	Manager Admin
POSTAL ADDRESS OF THE PEOPLES PRIMARY HEALTH CARE INITIATIVE (PPHI-B)	Peoples Primary Healthcare Initiative (PPHI-B) Samungli road, Quetta-Pakistan
Phone Number & Fax Number	081-2863620 & 081-2863623
E-MAIL PPHIBLN@GMAIL.COM ADDRESS &WEBSITE	https://www.pphib.org
Method of Procurement	SINGLE STAGE - TWO ENVELOPE BIDDING PROCEDURE
Issuance of Bidding Documents	The tender documents can be downloaded from the PPHI-B website: <u>http://pphib.org/</u>
DEADLINE FOR SUBMISSION OF BIDS	Date: 11 March 2024 & Time before CoB hour directly submitted to the Head Office, PPHI-Balochistan.
Opening of Technical bids	Date: 12 March 2024 & Time <u>11:00 AM</u> at the Head Office of PPHI-Balochistan.
Opening of Financial bids	Date: 13 March 2024 & Time <u>12:00 PM</u> at the Head Office of PPHI-Balochistan.
BIDDING DOCUMENT FEE	AMOUNT: PKR. 2,000/- PAY ORDER IN THE NAME OF PPHI Balochistan with Technical Bid in Separate Envelope
BID SECURITY/EARNEST MONEY	Amount: <u>2 %</u> of the quoted amount Manner of Payment: <u>Call Deposit/ Pay Order</u> in favor of <u>PPHI-B</u> <u>Balochistan,</u> with Financial Bid

ELIGIBILITY CRITERIA FOR BIDDERS:

S. No.	Bidders Eligibility Factor	Mandatory Requirement	Document Required
1	Registration with Income Tax, GST and BRA	NTN/STRN/GST Certificate AND must be on Active Tax Payer list and has active registration with BRA & Registration in relevant tariff.	Copy of <u>NTN/STRN</u> AND duly verifiable <u>Active Tax Payer</u> <u>Certificate</u> from FBR website & BRA.
2	Registration with Pakistan Engineering Council	Valid PEC Certificate in relevant code	Copy of Valid PEC with relevant Civil Codes should be attached.
3	Relevant Experience	Five (05) successfully completed comparable & similar assignments of Solarization.	Copies of <u>Work Order</u> /s with relevant completion certificate/s .
4	Financial Capacity (For Firms)	Turn Over of PKR. 05 Million for the past 3 years each (2021, 2022 and 2023) (For Firms)	Audited <u>Final Accounts</u> OR Annual Tax Return Only (2021, 2022 and 2023).
5	Non-Blacklisting	Must not be presently black-listed by any Government/ Semi-Govt or Private Organization	Declaration of Non-blacklisting on <u>Non-Judicial Stamp</u> paper by the Bidder/Individual.
6	Local presence (For Firms)	The Bidder must have functional corporate/support office at Provincial level	Copy of <u>Tenancy agreement</u> or <u>ownership documents</u> of the office premises AND Copy of recently paid <u>utility Bill</u> (maximum 3 months old)
7	Delivery time compliance	Must agree to serve the Contract within agreed time i.e., till 31st March 2024.	Completion time must be <u>clearly</u> <u>specified</u> in the Technical Bid
8	Agreement with all the terms & conditions	Must unconditionally agree with all the instructions, terms & conditions specified in the bidding documents & contract agreement	Signature & company seal on every page of the bidding document.
9	Submission of Bidding Document Fee	As required by the Peoples Primary Healthcare Initiative (PPHI-B) in the Tender Notice	AMOUNT: PKR. 2,000/- Tender Fee in separate envelope with technical proposal. AMOUNT: 2 % Security Fee with financial proposal

NOTE: It is mandatory for the bidders to meet all the above-mentioned requirements of eligibility. In-case of not meeting any single requirement, the Bid shall be declared NON-RESPONSIVE

BIDDER'S INFORMATION: (To be filled-in by the Bidder)

1. Name of company/Individual:______

2.	Complete Postal Address:
3.	Tel No:4. Email address:
5.	Fax No:6. Mobile No:
7.	Authorized Representative's name & designation:
8.	Type of Business:
	(1) Sole Proprietorship 🗆 (2) Partnership 🗆
	(3) Corporation (Private Ltd.) \Box (4) Corporation (Public Ltd.) \Box
9.	National Tax Number& Date of issuance:
10	. Sales Tax Registration No. / BRA Registration No.
11.	. Bid Validity (Please specify in no. of days)
	. Total Completion Time (Mention date of mpletion)

DATA-SHEET OF THE ASSIGNMENT / SCOPE OF WORK

The objective of the below given Data-Sheet / Schedule of Requirements is to provide sufficient information to bidders to understand complete scope of this procurement such that no requirement of the Peoples Primary Healthcare Initiative (PPHI-B) is left un-mentioned here under.

S#	District	Name of BHUs	Nature of Work
1	Pishin	Niganda & Batezai	Solarization of Basic Health Unit
2	Killa Abdullah	Lajwar	Solarization of Basic Health Unit

Note: All Contractors are advised to visit the site before quoting rates in BOQs of Tender Documents.

Delivery Schedule & Requirements:

Place of Execution of Works is: Basic Health Units of Districts Pishin and Killa Abdullah as per the above list of BHUs.

INSTRUCTIONS FOR PREPARING TECHNICAL BID

These Instructions are being given for strict compliance by the Bidders. Failure to fulfill any instruction given here-under may result in dis-qualification of the Bid/s.

Proposals shall be prepared on following lines: -

- 1. Sealed Envelope containing the Technical Proposal should clearly state:
 - a. <u>"Name of Bidder "</u>
 - b. <u>"Name of Tender</u>"
 - c. <u>"TECHNICAL PROPOSAL"</u>
- 2. The portion of Technical Proposal of this bidding document duly filled, supported with Bidder's covering Letter and the technical Bid on Bidders Letter Head be attached as the Technical Proposal.
- 3. Technical Proposal shall be prepared keeping in view the specifications provided in the Data Sheet and the schedule of requirements or otherwise as placed demand further during the bidding process.
- 4. Following information should be attached/contained in the Technical Proposal:
 - a. Receipt of payment of <u>bidding Document Fee</u> May be in terms of Pay Order in favor of PPHI BALOCHISTAN
 - b. **Completion time**, which means; actual execution time for the titled Work.
 - c. Documentary <u>evidence of fulfillment of eligibility criteria</u> for Bidders as required by the Peoples Primary Healthcare Initiative, Balochistan. (PPHI-B).
 - d. Documentary evidence of <u>fulfillment of complete schedule of requirements as</u> <u>per evaluation criteria</u> including technical, administrative and service requirements of the Peoples Primary Healthcare Initiative, Balochistan (PPHI-B)
 - e. <u>Description of status</u> as Partnership / authorization from the Firm / authorized importer / distributor / manufacturer / retailer etc. (as the case may be) as required by the Peoples Primary Healthcare Initiative, Balochistan (PPHI-B) in the schedule of requirements.
 - f. <u>Defect Liability Period</u>: details. (As applicable) as required by the Peoples Primary Healthcare Initiative, Balochistan (PPHI-B) in the schedule of requirements as mentioned.
 - g. Every page of the **<u>Bid must be numbered, signed & stamped</u>** by the authorized representative.
- 5. Attachment of any document not demanded by the Peoples Primary Healthcare Initiative (PPHI-B) at instruction 4 of "Instruction for preparation of Technical Bid" is strictly prohibited.

Evaluation Criteria: Selection of the successful bidder shall be based on the **Single Stage-Two Envelop** <u>Method</u>

The procedure shall be applied as follows: -

1. <u>Bidders Eligibility Assessment.</u> Initial evaluation of the technical proposals shall be carried-out by the **PROCUREMENT COMMITTEE**, as per the requirements of the eligibility criteria laid down under the heading of "Letter of Invitation for Bids – Eligibility Criteria for Bidders" in the following manner:

Diddore Elizibility Fostor	Dequirement	Bidder 1	Bidder 2	Bidder 3
Bidders Eligibility Factor	Requirement	YES / NO	YES / NO	YES / NO
	I. Copy of NTN attached?			
Destation the last of	II. BRA Certificate Copy?			
Registration with Income	III. Active Tax Payer?			
Tax (For Firms),BRA (if applicable)	IV. Registered with FBR & BRA in			
	relevant tariff code?			
	Copy of Valid PEC Certificate at time			
Registration with PEC	of Technical Bid, with Relevant code			
	Five (05) No. of Work Orders with			
	relevant completion certificate of			
Relevant Experience	successfully completed similar			
	assignments attached?			
	Annual Audit Financial Statement OR			
Financial Canadity (For	Annual Tax Returns to Clarify the			
Financial Capacity (For	Minimum turnover of PKR. 05 million			
Firms)	for the past 3 years each (2021, 2022			
	and 2023) attached?			
Agreement with all the	Signature & company seal at every			
terms & conditions	page of bidding document affixed?			
Delivery time	Is the quoted completion time within			
	the stipulated time period?			
	Declaration of non-blacklisting by			
Non Blacklisting	any govt, semi-govt or private			
Non Blackisting	organization, on judicial stamp paper			
	attached?			
	Copy of tenancy agreement or			
Local Presence	ownership documents and last three			
	months paid utility bills attached?			
	Pay order of Rs. 2,000/- in favor of			
Bidding Documents Fee	PPHI-B as bidding document fees			
	attached?			

- i. Firm must score "YES" in all requirements of the eligibility criteria to be categorized as Eligible. "NO" to any requirement of the eligibility criteria, by any bidder shall render the Firm as Ineligible.
- ii. Subsequent upon said assessment, Bidders shall be categorized as:
 - 1. Eligible Bidders
 - 2. Ineligible Bidders
- 2. <u>Return of Financial Proposals from Ineligible Bidders.</u> Proposals from Ineligible Bidders shall be declared "Non-Responsive", consequently shall **NOT** be accepted for any further evaluation:
 - i. Their Financial Proposals shall be returned without being opened.
 - ii. Their Bid security shall be released upon their written request.
- <u>Return of Non-Responsive Proposals & preparation of Technical Evaluation Report.</u> Technical Proposals not conforming to the required technical, administrative or legal requirements shall be declared as "Non-Responsive" and consequently shall NOT be accepted for any further evaluation:
 - i. Their financial proposals shall be returned without being opened.
 - ii. Their Bid security shall be released upon their written request.
 - iii. Technical Evaluation Report shall be prepared duly signed by all the members of the Procurement Committee, giving **<u>REASONS</u>** for;
 - 1. Acceptance of the Eligible & Responsive Bid/s and.
 - 2. Rejection of the Ineligible &/OR Non-Responsive Bid/s.
 - iv. Technical Evaluation concludes at this stage.
- 4. <u>Financial Evaluation.</u> Financial Proposals of the Responsive Technical Proposals shall be publicly opened in the next meeting as specified in this document under the heading of "Letter of Invitation for Bid" Financial Comparative Statement / Evaluation Report of the "Responsive Proposals" shall be prepared by the **PROCUREMENT COMMITTEE** in the following manner:

FINANCIAL EVALUATION OF BIDS							
Item/s Name /	Quantitu	Responsive Bidder 1		Responsive Bidder 2		Responsive Bidder 3	
Model & description	Quantity	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
Service 1							
Service 2							
Service 3							

i. Subsequently, the prepared Financial Evaluation Report shall duly be signed by all the members of the Procurement Committee.

- ii. Comparatives of Financial will be prepared and signed by the procurement Committee in detail
- iii. If there is any discrepancy between Unit rate and total rate, the unit rate will always govern
- iv. If there is any discrepancy in tender documents clause and Work Order Clause, the work order Clause will always govern.
- v. If there is any discrepancy between amount in words and amount in figures, the amount in words will always govern

5. <u>Recommendation of Procurement Committee</u>

After Technical Qualification, the contract will be awarded to the "Lowest Financially Evaluated bidder" with minimum quoted rates among all the Technical qualified Contractors.

Note:

PPHI-B reserves the right to award whole quantity of work as per BOQs or partially as this shall be subject to availability of funds & donor approval.



The Head Office, People's Primary Healthcare Initiative, Balochistan. Admin Section Reference No.<u>PPHI-B/H.O</u> <u>BLN/2024/02/SOLAR/002</u> Dated: _____

Financial Proposal

People's Primary Healthcare Initiative Balochistan

Bidding Document for the Solarization of Basic Health Unit Batezai & Niganda of District Pishin & Lajwar of District Killa Abdullah, Balochistan

NAME OF BIDDER:

(To be filled-in by the Bidder)

Address: Peoples Primary Healthcare Initiative (PPHI) Balochistan House # 8-A, Jinnah Town Samungli Road, Quetta-Pakistan.

> Phone: <u>081-2863620</u> Website: <u>www.pphib.org</u>

1.	Name of company:
2.	Complete Postal Address:
3.	Tel No:4. Email address:
5.	Fax No:6. Mobile No:
6	 Authorized Representative's name & designation:
8.	Type of Business: (1) Sole Proprietorship □ (2) Partnership □ (3) Corporation (Private Ltd.) □ (4) Corporation (Public Ltd) □
9.	National Tax Number& Date of issuance:
10	. Sales Tax Registration No. / BRA Registration No
11.	. BTSN No
12	. Bid Validity: (Please specify in No. of Days)
13	. Total Bid Value: (In Pakistani Rupees)

INSTRUCTIONS FOR PREPARING FINANCIAL PROPOSAL

These Instructions are being given for strict compliance by the Bidders. Failure to fulfill any instruction given here-under may result in disqualification of the Bid/s.

Financial Proposals shall be prepared on following lines: -

- 1. Sealed Envelope containing the Financial Proposal should clearly state:
 - a. <u>"Name of Bidder "</u>
 - b. <u>"Name of Tender</u>"
 - c. <u>"Financial Proposal"</u>
- 2. The portion of Financial Proposal of this bidding document duly filled, supported with Bidder's covering Letter be attached as the Financial Proposal of the bidder
- 3. Following information should be attached/contained in the financial proposal:
 - a. Original Bid Security (If required by the Peoples Primary Health Initiative (PPHI-B))
 - b. Taxes must be included along-with the price of each item

Α	В	C	D	E		F
S. No.	Item Name	Quantity	Unit Price	GST Amount	GST %age	Total Price (Including Taxes)
Α	В	С	D			(C x D) + E = F
1						
2						
3						
4						
		Total				

c. Financial Bid shall be prepared on the Bidders Letter Head in the following format:

Note: Each Bidder must mention clearly the rate of BRA & GST applicable on each item of its Bid.

- 4. Offer must be quoted on TCA (Total Cost of Acquisition) basis at the risk & cost of the bidder. This means:
 - i. ALL costs (including duties, taxes & other Govt. payables) incurred up-to delivery at the designated location of the Peoples Primary Health Initiative (PPHI-B).
 - ii. Complete supplies/services as required in the schedule of requirements of this bidding document.
 - iii. Cost including fixation, assembling, dismantling etc. (As & where applicable).
- 5. BST/GST Taxes must be included along-with the price of each item/components/service
- In-case of any Tax exemptions, exemption certificate from the concerned Tax Office / Regional Tax Office pertaining particularly to this case may be provided; otherwise, taxes shall be deducted as per Government Policy / Rules
- 7. Every page of the Bid must be numbered, signed & stamped by the bidder.

TERMS AND CONDITIONS:

- Completion time may be clearly specified. Where completion time shall mean; time consumed execution of required services to the designated location of Peoples Primary Health Initiative (PPHI-B), including but not limited to time required for development of Performa/forms and training (if needed) (Complete delivery as per the schedule of requirements services detailed in the Data-Sheet)
- 2. Maximum completion time for the assignment is **till 31st March, 2024** from the date of work Order.
- 3. Tenders must be quoted in Pakistani Rupees (PKR).
- 4. Tax Liability:
 - i. Complete Tax liability is to be borne by the Vendor/individual as per the applicable rate of tax authority.
 - ii. Quoted prices shall be inclusive of all applicable Taxes with maintaining of %age of BRA/GST (Please note that GST shall only apply on items where applicable as per sales tax act 1990).
 - iii. In-case of any Tax exemptions, exemption certificate from the concerned Tax Office / Regional Tax Office pertaining particularly to this case may be provided; otherwise, taxes shall be deducted as per Government Policy / Rules.
 - iv. All tax variations by the Tax Authorities will be borne by the vendor only, there will be no change in contract.
- 5. Validity of the bid would be at-least 3 weeks (to be specified by the Peoples Primary Health Initiative (PPHI-B)/ office) from the date of Tender opening
- 6. Financial Bids must be accompanied with Bid Security (for firms) in the form of Bank Guarantee or Deposit at Call from a scheduled bank @ 2% of quoted bid value favoring the PPHI Balochistan.
- 7. In case of late execution of required supplies/installation, the bidder may be blacklisted and late delivery penalty (Liquidated Damages) shall be imposed at the rate of 1% per day(of the value of items delivered late) per day, up to a maximum of 30% of the Contract Value.
- 8. The services, as per the work Order, must be executed by the authorized HR (technical) at the time of execution of work at Peoples Primary Health Initiative (PPHI-B)/ designated Office.
- 9. Bid Security of successful bidder/s shall be released upon submission of Performance Security, Otherwise Bid Security/CDR may be retained until 30% completion of work
- 10. Bid Security of unsuccessful bidder/s shall be released within thirty days from the date of award of contract to the successful bidder/s.
- 11. Tender will be awarded to the lowest quoted bidder in financial evaluation.
- 12. Payment release is subject to delivery report duly signed by the following committee.
 - i. Public Health Specialist
 - ii. District Support Manager of concerned District.
 - iii. Project Coordinator
 - iv. In-charge of BHU Concerned.

- v. Authorized person from bidder/supplier.
- 13. Payment:
 - i. 100% payment will be released within 20 working days upon complete delivery of purchase order supplies subject to provision of required documents.
 - ii. Partial payment is not allowed.
 - iii. Advance payment is not allowed.
 - iv. Payment is subjected to satisfactory report of above mentioned committee and donor approval.
- 14. 10% performance guarantee will be withheld from the financial payment by PPHI-B for 120 days from the date of completion of all work.

CURRENCY & BID VALIDITY

• Pak Rupees & 45 days

PEOPLE'S PRIMARY HEALTHCARE INITIATIVE(PPHI)-BALOCHISTAN

Summary of Cost for the Solarization of PPHI's BHUs at Lajwar (District Killa Abdullah) & <u>Niganda & Batezai (District Pishin)</u>

S.No	Description	Amount (Rs.) Inclusive of all applicable taxes.
1	BHU Batezai in District Pishin	
2	BHU Niganda in District Pishin	
3	BHU Lajwar in District Killa Abdullah	
	Grand Total	

1. Bill of Quantities for The solarization of BHU Lajwar in District Pishin

S.No	ITEM DESCRIPTION	QTY.	UNIT	RATE	BST/GST Amount	AMOUNT (Rs.)
Α	[A]Solarizat	tion				
1	Solar Panel					

	Supply, Install, connect, test and commission of HALF CUT MONO PERC SOLAR PANEL & accessories of JINKO, LONGI and Canadian Solar or equivalent having following Specifications: Grade-A with Documents Mono PERC Half cut Monofacial (540W), Anodized aluminum Frame , Maximum Efficiency 20.97%, Split junction Box, 3.2mm high transmission tempered glass, Back sheet of Composite film, Nominal Maximum Power 540W(STS), Batter Shading tolerance, Low Temperature Coefficient, Higher Shade tolerance, Snow Load Capability	3000	Per Watt		
2	Solar Inverter				
	Supply, Install, connect, test and commission of SOLAR HYBRID INVERTER & accessories of Inverex or equivalent having following specifications: Pure Sine Wave Solar Hybrid Inverter (UPS), Rated Capacity: 3000Watt. Solar Capacity: 3200Watt,Dual MPPT efficiency of 99.9%, Resistance to bad weather, Maximum Efficiency 97.6%, Operating temperature -25 to 60 Degree Centigrade	3200	Per Watt		
3	Solar Mounting Structure (Fixed)				
	Supply, Install, connect, test and commission of Fixed SOLAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts etc complete in all respect as per directions of Engineer.	3000	Per Watt		
4	Batteries				
	Supply, Install, connect, test and commission of Batteries –Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 m Ω , Comply with IEC, IEEE, UL, EN, CE standards, etc.	460 2 batteries	per AH		
5	Circuit Breakers				
	Supply and Install Single Pole 63 Amp DC Circuit Breaker	3	Each		
	Supply and Install Single Pole 40 Ampere DC Circuit Breaker	1	Each		
	Supply and Install Single Pole 16 Ampere DC Circuit Breaker	1	Each		
	Supply and Install Single Pole 20 Ampere DC Circuit Breaker	2	Each		
6	Distribution board				

7	Provide, install, test and commission recessed wall mounting type distribution board fabricated from 16 SWG steel sheet, powder coated with approved color 2'x2'x1.5' Concealed Wiring	1	Each		
	Concealed wiring with 3/4 inch (20mm) dia PVC conduit and accessories such as bends elbows, junction boxes etc., from point to switch with length upto 30 ft. (10m) including any switch to switch wiring with 3x1.5 Sq.mm PVC insulated single core copper conductor Pakistan Cables, Pioneer, Newage or approved equivalent cables,	6	Point		
8	Solar DC Cable				
	Supply, Install, connect, test and commission of CABLES & accessories. DC Cable OF DC Cable 16mm2 single Core Stranded and flexible insulated copper DC wires and cables must be used for all outdoor and indoor installations voltage drop must not exceed 1% on DC side of the power inverter and 1.5% on AC side of the power inverter The wiring that leads into the pole, protected in a PVC Spiral / Flexible conduit External cables adapted to outdoor exposure as per IEC 60811 The outer insulation: sunlight (UV)-resistant and weather	135	Rft		
9	G.I Stand for Cells				
	Provide and fix GI Battery Stand made with Angle Irons for Placing Battries with all other accessories complete in all respect as per directions of Engineer in charge	1	Job		
	Sub Total of Solarization [A]				

2. Bill of Quantities for The solarization of BHU Niganda in District Pishin

S.No	ITEM DESCRIPTION	QTY.	UNIT	RATE	BST/GST Amount	AMOUNT (Rs.)	
В	[B]Solarization						
1	Solar Panel						

	Supply, Install, connect, test and commission of HALF CUT MONO PERC SOLAR PANEL & accessories of JINKO, LONGI and Canadian Solar or equivalent having following Specifications: Grade-A with Documents Mono PERC Half cut Monofacial (540W), Anodized aluminum Frame , Maximum Efficiency 20.97%, Split junction Box, 3.2mm high transmission tempered glass, Back sheet of Composite film, Nominal Maximum Power 540W(STS), Batter Shading tolerance, Low Temperature Coefficient, Higher Shade tolerance, Snow Load Capability	3000	Per Watt		
2	Solar Inverter				
	Supply, Install, connect, test and commission of SOLAR HYBRID INVERTER & accessories of Inverex or equivalent having following specifications: Pure Sine Wave Solar Hybrid Inverter (UPS), Rated Capacity: 3000Watt. Solar Capacity: 3200Watt,Dual MPPT efficiency of 99.9%, Resistance to bad weather, Maximum Efficiency 97.6%, Operating temperature -25 to 60 Degree Centigrade	3200	Per Watt		
3	Solar Mounting Structure (Fixed)				
	Supply, Install, connect, test and commission of Fixed SOLAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts etc complete in all respect as per directions of Engineer.	3000	Per Watt		
4	Batteries				
	Supply, Install, connect, test and commission of Batteries –Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 m Ω , Comply with IEC, IEEE, UL, EN, CE standards, etc.	460 2 batteries	per AH		
5	Circuit Breakers				
	Supply and Install Single Pole 63 Amp DC Circuit Breaker	3	Each		
	Supply and Install Single Pole 40 Ampere DC Circuit Breaker	1	Each		
	Supply and Install Single Pole 16 Ampere DC Circuit Breaker	1	Each		
	Supply and Install Single Pole 20 Ampere DC Circuit Breaker	2	Each		
6	Distribution board				

7	Provide, install, test and commission recessed wall mounting type distribution board fabricated from 16 SWG steel sheet, powder coated with approved color 2'x2'x1.5' Concealed Wiring	1	Each		
	Concealed wiring with 3/4 inch (20mm) dia PVC conduit and accessories such as bends elbows, junction boxes etc., from point to switch with length upto 30 ft. (10m) including any switch to switch wiring with 3x1.5 Sq.mm PVC insulated single core copper conductor Pakistan Cables, Pioneer, Newage or approved equivalent cables,	6	Point		
8	Solar DC Cable				
	Supply, Install, connect, test and commission of CABLES & accessories. DC Cable OF DC Cable 16mm2 single Core Stranded and flexible insulated copper DC wires and cables must be used for all outdoor and indoor installations voltage drop must not exceed 1% on DC side of the power inverter and 1.5% on AC side of the power inverter The wiring that leads into the pole, protected in a PVC Spiral / Flexible conduit External cables adapted to outdoor exposure as per IEC 60811 The outer insulation: sunlight (UV)-resistant and weather	135	Rft		
9	G.I Stand for Cells				
	Provide and fix GI Battery Stand made with Angle Irons for Placing Battries with all other accessories complete in all respect as per directions of Engineer in charge	1	Job		
	Sub Total of Solarization [B]				

3. Bill of Quantities for The solarization of BHU Lajwar in District Killa Abdullah

S.No	ITEM DESCRIPTION	QTY.	UNIT	RATE	BST/GST Amount	AMOUNT (Rs.)
С	[C]Solarizat	ion				
1	Solar Panel					

2 Solar Inverter Supply, Install, connect, test and commission of SOLAR HYBRID INVERTER & accessories of Inverex or equivalent having following specifications: Pure Sine Wave Solar Capacity: 3200Watt,Dual MPPT efficiency of 99.9%, Resistance to bad weather, Maximum Efficiency 97.6%, Operating temperature -25 to 60 Degree Centigrade 3200 3 Solar Mounting Structure (Fixed) 3000 Supply, Install, connect, test and commission of Fixed SOLAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts etc complete in all respect as per directions of Engineer. 3000 4 Batteries 3000 Supply, Install, connect, test and commission of Batteries – Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 mΩ, Comply with IEC, IEEE, UL, EN, CE standards, etc. 460 2 batteries 5 Circuit Breakers 3 Supply and Install Single Pole 63 Amp DC Circuit Breaker 3 Supply and Install Single Pole 16 Ampere DC Circuit 1 Breaker 2 Each Supply and Install Single Pole 20 Ampere DC Circuit 2 Each Supply and Install Single Pole 20 Ampere DC Circuit 2 Each </th <th></th> <th>Supply, Install, connect, test and commission of HALF CUT MONO PERC SOLAR PANEL & accessories of JINKO, LONGI and Canadian Solar or equivalent having following Specifications: Grade-A with Documents Mono PERC Half cut Monofacial (540W), Anodized aluminum Frame, Maximum Efficiency 20.97%,Split junction Box, 3.2mm high transmission tempered glass, Back sheet of Composite film, Nominal Maximum Power 540W(STS), Batter Shading tolerance, Low Temperature Coefficient, Higher Shade tolerance, Snow Load Capability</th> <th>3000+</th> <th>Per Watt</th> <th></th> <th></th>		Supply, Install, connect, test and commission of HALF CUT MONO PERC SOLAR PANEL & accessories of JINKO, LONGI and Canadian Solar or equivalent having following Specifications: Grade-A with Documents Mono PERC Half cut Monofacial (540W), Anodized aluminum Frame, Maximum Efficiency 20.97%,Split junction Box, 3.2mm high transmission tempered glass, Back sheet of Composite film, Nominal Maximum Power 540W(STS), Batter Shading tolerance, Low Temperature Coefficient, Higher Shade tolerance, Snow Load Capability	3000+	Per Watt		
HYBRID INVERTER & accessories of Inverex or equivalent having following specifications: Pure Sine Wave Solar Capacity: 3200Watt,Dual MPPT efficiency of 99.9%, Resistance to bad weather, Maximum Efficiency 97.6%, Operating temperature -25 to 60 Degree Centigrade 3200 Per Watt 3 Solar Mounting Structure (Fixed) 3000 Per Watt Supply, Install, connect, test and commission of Fixed SULAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts etc complete in all respect as per directions of Engineer. 3000 Per Watt 4 Batteries 3000 Per Watt Supply, Install, connect, test and commission of Batteries – Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 mΩ, Comply with IEC, IEEE, UL, EN, CE standards, etc. 460 per AH Supply and Install Single Pole 63 Amp DC Circuit Breaker 3 Each Supply and Install Single Pole 64 0 Ampere DC Circuit Breaker 1 Each Supply and Install Single Pole 16 Ampere DC Circuit Breaker 2 Each	2	Solar Inverter				
Supply, Install, connect, test and commission of Fixed SOLAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts etc complete in all respect as per directions of Engineer. 3000 Per Watt 4 Batteries 3000 Per Watt 4 Batteries 3000 Per Watt 5 Supply, Install, connect, test and commission of Batteries per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 mΩ, Comply with IEC, IEEE, UL, EN, CE standards, etc. 460 5 Circuit Breakers 2 Supply and Install Single Pole 63 Amp DC Circuit Breaker 3 Each Supply and Install Single Pole 16 Ampere DC Circuit Breaker 1 Each Supply and Install Single Pole 20 Ampere DC Circuit Breaker 2 Each		HYBRID INVERTER & accessories of Inverex or equivalent having following specifications: Pure Sine Wave Solar Hybrid Inverter (UPS), Rated Capacity: 3000Watt. Solar Capacity: 3200Watt,Dual MPPT efficiency of 99.9%, Resistance to bad weather, Maximum Efficiency 97.6%,	3200			
SOLAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts etc complete in all respect as per directions of Engineer. 3000 Per Watt 4 Batteries 3000 Per Watt 4 Batteries 3000 Per Watt 5 Supply and Install Single Pole 63 Amp DC Circuit Breaker 3000 Per AH Per Watt 5 Circuit Breakers 3000 Per Pre access 3000 Per Watt 5 Circuit Breakers 3000 Per AH Supply and Install Single Pole 63 Amp DC Circuit Breaker 3000 Seach 5 Supply and Install Single Pole 16 Ampere DC Circuit Breaker 1 Each Each Supply and Install Single Pole 16 Ampere DC Circuit Breaker 2 Each Each	3	Solar Mounting Structure (Fixed)				
Supply, Install, connect, test and commission of Batteries – Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 mΩ, Comply with IEC, IEEE, UL, EN, CE standards, etc.460 2 batteriesper AH5Circuit Breakers		SOLAR MOUNTING STRUCTURE & accessories of 16 guage galvanized iron with drilling, concreting, Rawl Bolts	3000			
Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 mΩ, Comply with IEC, IEEE, UL, EN, CE standards, etc.460 2 batteriesper AH5Circuit BreakersImage: Circuit Breaker3EachSupply and Install Single Pole 63 Amp DC Circuit Breaker3EachSupply and Install Single Pole 40 Ampere DC Circuit Breaker1EachSupply and Install Single Pole 16 Ampere DC Circuit Breaker1EachSupply and Install Single Pole 20 Ampere DC Circuit Breaker2Each	4	Batteries				
Supply and Install Single Pole 63 Amp DC Circuit Breaker 3 Each Supply and Install Single Pole 40 Ampere DC Circuit 1 Each Breaker 1 Each Supply and Install Single Pole 16 Ampere DC Circuit 1 Each Breaker 1 Each Supply and Install Single Pole 16 Ampere DC Circuit 1 Each Breaker 2 Each		Tubular Batteries 1000 Cycles & accessories (1000 Cycles) having following specifications: Deep cycle battery, Voltage per unit 12 Volt, Capacity 230 AH, 12 years expected life, Self-discharge rate < 2% per month, Maximum charging current 60-70A, Internal resistance 4 m Ω , Comply with IEC,	2			
Supply and Install Single Pole 40 Ampere DC Circuit 1 Each Breaker 1 Each Supply and Install Single Pole 16 Ampere DC Circuit 1 Each Breaker 1 Each Supply and Install Single Pole 20 Ampere DC Circuit 1 Each Breaker 2 Each	5	Circuit Breakers				
Breaker I Each Supply and Install Single Pole 16 Ampere DC Circuit 1 Each Breaker 1 Each Supply and Install Single Pole 20 Ampere DC Circuit 2 Each		Supply and Install Single Pole 63 Amp DC Circuit Breaker	3	Each		
Breaker I Each Supply and Install Single Pole 20 Ampere DC Circuit 2 Each		Breaker	1	Each		
Breaker 2 Each		Breaker	1	Each		
6 Distribution board		Breaker	2	Each		
	6	Distribution board				

	Provide, install, test and commission recessed wall mounting type distribution board fabricated from 16 SWG steel sheet, powder coated with approved color 2'x2'x1.5'	1	Each		
7	Concealed Wiring				
	Concealed wiring with 3/4 inch (20mm) dia PVC conduit and accessories such as bends elbows, junction boxes etc., from point to switch with length upto 30 ft. (10m) including any switch to switch wiring with 3x1.5 Sq.mm PVC insulated single core copper conductor Pakistan Cables, Pioneer, Newage or approved equivalent cables,	6	Point		
8	Solar DC Cable				
	Supply, Install, connect, test and commission of CABLES & accessories. DC Cable OF DC Cable 16mm2 single Core Stranded and flexible insulated copper DC wires and cables must be used for all outdoor and indoor installations voltage drop must not exceed 1% on DC side of the power inverter and 1.5% on AC side of the power inverter The wiring that leads into the pole, protected in a PVC Spiral / Flexible conduit External cables adapted to outdoor exposure as per IEC 60811 The outer insulation: sunlight (UV)-resistant and weather	135	Rft		
9	G.I Stand for Cells				
	Provide and fix GI Battery Stand made with Angle Irons for Placing Battries with all other accessories complete in all respect as per directions of Engineer in charge	1	Job		
	Sub Total of Solarization [C]				
	Grand Total of Solarization [A+B+C]				

DECLARATION BY THE BIDDER

I solemnly undertake that:

- a. Having read, understood & made myself aware of all the Terms & conditions mentioned in this Bidding Document & the Rules, Regulations & Policies of the Government of Balochistan, governing the procurement & financial matters, <u>AGREE, ACCEPT &</u> <u>UNDETAKE TO ABIDE BY THE SAME.</u>
- b. The information provided in this form is correct to the best of my knowledge & in the event of change; details will be provided as soon as possible

Name & Designation _____

Signature ______ Date _____

Company stamp_____