

**BIDDING DOCUMENTS
FOR
INSTALLATION OF SOLAR STREET LIGHTS IN GILGIT CITY
(PHASE-IV)**

**Single Stage-Two Envelope
(SSTE) Bidding Procedure**



Name of Contractor/Firm_____

**GOVERNMENT OF GILGIT BALTISTAN
GILGIT DEVELOPMENT**

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**INVITATION
FOR
BIDS**



GOVERNMENT OF GILGIT-BALTISTAN
GILGIT DEVELOPMENT AUTHORITY (GDA)

Bid Reference No. No.GDA-TECH-4(66)/2024
Date: 28-09-2024



INVITATION FOR BIDS

1. Gilgit Development Authority (GDA) invites bids for the below tabulated works based on single stage two envelopes basis (SSTE) (Technical and Financial) from eligible firms or contractors licensed by the Pakistan Engineering Council in the category C-4 and above for the Current Financial Year 2024-25.

S.#	Name of Work	Category required	Bid Security	Date of Submission of Tender	Date of Opening of Tender
1	Installation of Solar Street Lights in Gilgit City (Phase-IV)	C-4 or above	1.800 Million PKR	16-10-2024 11:00 AM	16-10-2024 11:30 AM
2	Extension of Road from Sewerage Treatment Plant to KKH Gilgit and Adjoining Link Roads	C-4 or above	3.500 Million PKR	16-10-2024 02:00 PM	16-10-2024 02:30 PM
3	Construction of Water Treatment Plant, Chlorination Unit, Store Room & Operater Office & Boundry Fencing (W.T.P). Integrated Water Supply System For Gilgit City, (Phase-I)	C-4 or above	2.600 Million PKR	17-10-2024 11:00 AM	17-10-2024 11:30 AM

2. Interested firms/contractors may obtain complete set of bidding documents from the office of undersigned during office hours upon payment of a non-refundable fee of Rs.8000/- on or before 15th October, 2024.
3. All bids must be accompanied by Bid Security mentioned against each work from any scheduled bank of Pakistan in favor of Deputy Director (Engineering), GDA, and must be delivered to office of the "*Deputy Director Engineering GDA, Yadgar Chowk, Khomer Gilgit*" at or before the date and time mentioned against each work above. Bids will be opened on same date and venue at the time mentioned against each work, in the presence of Bidders' representatives. Other details are provided in bidding documents.
4. The bids prepared for the above works should be in accordance with the instructions contained in the bidding documents and must be submitted in the office of Deputy Director (Engineering), GDA before closing date and time. Envelop marked "Technical Bid" will be opened on the same date by the committee and preliminary examination of technical bids will be carried out of substantial responsiveness of technical bids, "Financial Bids" will be sealed and will be opened after evaluation of technical bids.
5. Bid security should be attached with technical bid otherwise bids will not be accepted.
6. Pre-bid meeting will be held on 07th October, 2024 at 1130 hours in the office of the Director (Engineering), GDA.
7. This advertisement is also available on www.ppra.org.pk and www.gbppra.gov.pk
8. This Authority reserves the right to reject any or all the proposals as per PPRA Rules.


DEPUTY DIRECTOR (ENGINEERING), GDA
Yadgar Chowk, Khomer, Gilgit.
Email: gdagilgit@gmail.com
Phone #: 05811-922307.

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

(Note: These Instructions to Bidders along with Bidding Data Sheet will not be part of the Contract and will cease to have effect once the contract is signed.)

A. GENERAL

IB.1 Scope of Bid

- The Employer as defined in the Bidding Data Sheet hereinafter called “the Employer” wishes to receive bids for the construction and completion of works as described in these Bidding Documents, and summarized in the Bidding Data Sheet hereinafter referred to as the “Works”.

The successful bidder will be expected to complete the Works within the time specified in Appendix-A to Bid.

IB.2 Source of Funds

- 2.1 The Employer has applied for/received a loan/credit from the source (s) indicated in the Bidding Data Sheet in various currencies towards the cost of the project specified in the Bidding Data Sheet and it is intended that part of the proceeds of this loan/credit will be applied to eligible payments under the Contract for which these Bidding Documents are issued.

IB.3 Eligible Bidders

3.1 This Invitation for Bids is open to all bidders meeting the following requirements:

- a) Duly licensed by the Pakistan Engineering Council (PEC) in the category **C-4 & above. No foreign Firm(s) is allowed to participate whether as Single entity or Lead member of JV or JV member.**

IB.4 One Bid per Bidder

- 4.1 Each bidder shall submit only one bid either by himself, or as a partner in a joint venture. A bidder who participates in more than one bid (other than alternatives pursuant to Clause IB.16) will be disqualified.

IB.5 Cost of Bidding

- 5.1 The bidders shall bear all costs associated with the preparation and submission of their respective bids and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

IB.6 Site Visit

The bidders are advised to visit and examine the Site of Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. All cost in this respect shall be at the bidder's own expense.

The bidders and any of their personnel or agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

B. BIDDING DOCUMENTS

IB.7 Contents of Bidding Documents

The Bidding Documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9.

1. Instructions to Bidders.
2. Bidding Data Sheet.
3. General Conditions of Contract, Part-I (GCC).
4. Particular Conditions of Contract, Part-II (PCC).
5. Specifications – Special Provisions.
6. Specifications – Technical Provisions.
7. Form of Bid & Appendices to Bid.
8. Bill of Quantities (Appendix-D to Bid).
9. Form of Bid Security.
10. Form of Contract Agreement.
11. Forms of Performance Security and Mobilization Advance Guarantee/Bond and Form of Indemnity Bond for Secured Advance
12. Drawings.

The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the Bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

IB.8 Clarification of Bidding Documents

- 8.1 Any prospective bidder requiring any clarification (s) in respect of the Bidding Documents may notify the Employer in writing at the Employer's address indicated in the Invitation for Bids. The Employer will respond to any request for clarification which he receives earlier than 28 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the Bidding Documents, including a description of the enquiry but without identifying its source.

IB.9 Amendment of Bidding Documents

At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by issuing addendum.

Any addendum thus issued shall be part of the Bidding Documents pursuant to IB 7.1 hereof and shall be communicated in writing to all purchasers of the Bidding Documents. Prospective bidders shall acknowledge receipt of each addendum in writing to the Employer.

To afford prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend the deadline for submission of bids in accordance with Clause IB.20

C. PREPARATION OF BIDS**IB.10 Language of Bid**

- 10.1 The bid and all correspondence and documents related to the bid exchanged by a bidder and the Employer shall be in the bid language stipulated in the Bidding Data Sheet and Particular Conditions of Contract. Supporting documents and printed literature furnished by the bidders may be in any other language provided the same are accompanied by an accurate translation of the relevant parts in the bid language, in which case, for purposes of evaluation of the bid, the translation in bid language shall prevail.

IB.11 Documents Comprising the Bid

The Bid shall comprise two envelopes submitted simultaneously, one called the Technical Bid and the other the Price Bid, containing the documents listed in Bidding Data Sheet under the heading of IB 11.1 A & B respectively. Both envelopes to be enclosed together in an outer single envelope called the Bid. Each bidder shall furnish all the documents as specified in Bidding Data Sheet 11.1 A & B.

Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed agreement. The role to be played by each partner to be specified therein. Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:

- (a) In case of a successful bid, the Form of JV Agreement shall be signed so as to be legally binding on all partners within 7 days of the receipt of letter of acceptance failing which the contract and the letter of acceptance shall stand void and redundant.
- (b) One of the joint venture partners shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
- (c) The partner-in-charge shall always be duly authorized to deal with the Employer regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of JV Agreement and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) All partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the Contract in accordance with the Contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para (b) above as well as in the Form of Bid and in the Form of JV Agreement (in case of a successful bid); and
- (e) A copy of JV agreement shall be submitted before signing of the Contract, stating the conditions under which JV will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. The JV Agreement shall be made part of the contract. No amendments / modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partners without prior written consent of the Employer.
- (f) The Bidder shall furnish, as part of the Technical Bid, a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time referred to in Sub-Clause 1.2 hereof.

IB.12 Bid Prices

Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in IB 1.1 hereof, based on the unit rates and / or prices submitted by the bidder.

The bidders shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by a bidder will not be paid for by the Employer when executed and shall be deemed covered by rates and prices for other items in the Bill of Quantities.

All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to the deadline for submission of bids shall be included in the rates and prices and the total Bid Price submitted by a bidder. Additional / reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed / deducted as per Sub-Clause 70.2 of the General Conditions of Contract Part-I.

The rates and prices quoted by the bidders are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 70 of the Conditions of Contract. The bidders shall furnish the prescribed information for the price adjustment formulae in Appendix C to Bid and shall submit with the bids such other supporting information as required under the said clause.

IB.13 Currencies of Bid and Payment

The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. A bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country (referred to as the "Foreign Currency Requirements") shall indicate the same in Appendix-B to Bid. The proportion of the Bid Price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the Bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in his bid.

The rates of exchange to be used by the bidder for currency conversion shall be the TT & OD Selling Rates published or authorized by the State Bank of Pakistan prevailing on the date 28 days prior to the deadline for submission of bids. For the purpose of payments, the exchange rates used in bid preparation shall apply for the duration of the Contract.

IB.14 Bid Validity

Bids shall remain valid for the period stipulated in the Bidding Data Sheet after the Date of Bid Opening specified in Clause IB.23.

In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the bidders extend the period of validity for a specified additional period which shall in no case be more than the original bid validity period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting his Bid Security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his Bid Security for the period of the extension, and in compliance with Clause IB.15 in all respects.

IB.15 Bid Security

Each bidder shall furnish, as part of his bid, a Bid Security in the amount stipulated in the Bidding Data Sheet in Pak Rupees or an equivalent amount in a freely convertible currency.

The Bid Security shall be, at the option of the bidder, in the form of Deposit at Call or a Bank Guarantee issued by a Scheduled Bank in Pakistan or from a foreign bank duly counter guaranteed by a Scheduled Bank in Pakistan in favor of the Employer valid for a period 28 days beyond the Bid Validity date.

Any bid not accompanied by an acceptable Bid Security shall be rejected by the Employer as non-responsive.

The bid securities of unsuccessful bidders will be returned as promptly as possible, but not later than 28 days after the expiration of the period of Bid Validity.

The Bid Security of the successful bidder will be returned when the bidder has furnished the required Performance Security and signed the Contract Agreement.

The Bid Security may be forfeited:

- (a) If the bidder withdraws his bid except as provided in IB 22.1;
- (b) If the bidder does not accept the correction of his Bid Price pursuant to IB 27.2 hereof; or
- (c) In the case of successful bidder, if he fails within the specified time limit to:
 - (i) Furnish the required Performance Security;
 - (ii) Sign the Contract Agreement, or
 - (iii) Furnish the required JV agreement within 7 days of the receipt of letter of acceptance.

IB.16 Alternate Proposals by Bidder

Should any bidder consider that he can offer any advantages to the Employer by a modification to the designs, specifications or other conditions, he may, in addition to his bid to be submitted in strict compliance with the Bidding Documents, submit any Alternate Proposal(s) containing (a) relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details / conditions, provided always that the total sum entered on the Letter of Price Bid shall be that which represents complete compliance with the Bidding Documents. The technical details and financial implication involved are to be submitted in two separate sealed envelopes as to be followed in main bid proposals.

Alternate Proposal(s), if any, of the lowest evaluated responsive bidder only may be considered by the Employer as the basis for the award of Contract to such bidder.

IB.17 Pre-Bid Meeting

The Employer may, on his own motion or at the request of any prospective bidder(s), hold a pre-bid meeting to clarify issues and to answer any questions on matters related to the Bidding Documents. The date, time and venue of pre-bid meeting, if convened, is as stipulated in the Bidding Data Sheet. All prospective bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.

The bidders are requested to submit questions, if any, in writing so as to reach the Employer not later than seven (7) days before the proposed pre-bid meeting.

Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all purchasers of the Bidding Documents. Any modification of the Bidding Documents listed in IB 7.1 hereof, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause IB.9 and not through the minutes of the pre-bid meeting.

Absence at the pre-bid meeting will not be a cause for disqualification of a bidder.

IB.18 Format and Signing of Bid

Bidders are particularly directed that the amount entered on the Letter of Price Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.

All appendices to Bid are to be properly completed and signed.

No alteration is to be made in the Letters of Price and Technical Bids nor in the Appendices thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the bid may be rejected.

The Bidder shall prepare one original of the Technical Bid and one original of the Price Bid comprising the Bid as described in Bidding Data Sheet against IB 11 and clearly mark it "ORIGINAL - TECHNICAL BID" and "ORIGINAL - PRICE BID". In addition, the Bidder shall submit two (2) copies of the Bid and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bidding Data Sheet and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid, except for unamended printed literature, shall be signed or initialed by the person signing the bid.

Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

Bidders shall indicate in the space provided in the Letter of Technical and Price Bids, their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the Contract is to be sent.

Bidders should retain a copy of the Bidding Documents as their file copy.

D. SUBMISSION OF BIDS FOR SINGLE STAGE TWO ENVELOPE BIDDING PROCEDURE

IB.19 Sealing and Marking of Bids

Each bidder shall submit his bid as under:

- (a) ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.
- (b) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed / identified as given in IB 19.2 hereof.
- (c) The technical bid should comprise of documents listed in IB 11.1 (A) & the price bid should comprise of documents listed in IB 11.1 (B) which shall be placed in separate envelopes in accordance with IB 11.1.

The inner and outer envelopes shall:

- (a) Be addressed to the Employer at the address provided in the Bidding Data Sheet;
- (b) Bear the name and identification number of the contract as defined in the Bidding Data Sheet; and
- (c) Provide a warning not to open before the time and date for bid opening, as specified in the Bidding Data Sheet.

In addition to the identification required in IB 19.2 hereof, the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "late" pursuant to Clause IB.21

If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

IB.20 Deadline for Submission of Bids

- (a) Bids must be received by the Employer at the address specified no later than the time and date stipulated in the Bidding Data Sheet.
- (b) Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of bids. No claims will be entertained for refund of such expenses.
- (c) Where delivery of a bid is by mail and the bidder wishes to receive an acknowledgment of receipt of such bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed bid package.
- (d) Upon request, acknowledgment of receipt of bids will be provided to those making delivery in person or by messenger.

The Employer may, at his discretion, extend the deadline for submission of Bids by issuing an amendment in accordance with Clause IB.9, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

IB.21 Late Bids

- 21. (a) Any bid received by the Employer after the deadline for submission of bids prescribed in Clause IB.20 will be returned unopened to such bidder.

- (b) Delays in the mail, delays of person in transit, or delivery of a bid to the wrong office shall not be accepted as an excuse for failure to deliver a bid at the proper place and time. It shall be the bidder's responsibility to determine the manner in which timely delivery of his bid will be accomplished either in person, by messenger or by mail.

IB.22 Modification, Substitution and Withdrawal of Bids

Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the Employer prior to the deadline for submission of bids.

The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.

No bid may be modified by a bidder after the deadline for submission of bids except in accordance with IB 22.1 and 27.2.

Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Bid may result in forfeiture of the Bid Security in pursuance to Clause IB.15.

E BID OPENING AND EVALUATION FOR SINGLE STAGE TWO ENVELOPE BIDDING PROCEDUR

IB. 23 Bid Opening

The Employer will open the Technical Bids in public at the address, date and time specified in the Bidding Data Sheet in the presence of Bidders' designated representatives and anyone who choose to attend. The Price Bids will remain unopened and will be held in custody of the Employer until the specified time of their opening.

First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding Withdrawal Notice contains a valid authorization to request the withdrawal and is read out at bid opening.

Second, outer envelopes marked "SUBSTITUTION" shall be opened. The inner envelopes containing the Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened, read out, and recorded. Substitution Price Bid will remain unopened in accordance with IB

23.1. No envelope shall be substituted unless the corresponding

Substitution Notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.

Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Bid and/or Price Bid shall be modified unless the corresponding Modification Notice contains a valid authorization to request the modification and is read out and recorded at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original and Modification, will remain unopened in accordance with IB 23.1. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

Other envelopes holding the Technical Bids shall be opened one at a time, and the following read out and recorded:

- (a) the name of the Bidder;
- (b) whether there is a modification or substitution;
- (c) the presence of a Bid Security, if required; and
- (d) Any other details as the Employer may consider appropriate.

No Bid shall be rejected at the opening of Technical Bids except for late bids, in accordance with IB 21.1. Only Technical Bids read out and recorded at bid opening, shall be considered for evaluation.

Preliminary Examination of Technical Bids

- a) The Employer shall first examine qualification and experience Data as per appendix M and N submitted by the Bidder. The technical proposal examination of those bidders only shall be taken in hand who meet the minimum requirement as mentioned in appendix M and N. Only substantially responsive qualification shall be considered for further evaluation.
- b) The Employer shall examine the Technical Bid to confirm that all the documents have been provided, and to determine the completeness of each document submitted.

The Employer shall confirm that all the documents and information have been provided for evaluation of Technical bid as required under these bidding documents.

At the end of the evaluation of the Technical Bids, the Employer will invite only those bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids.

The date, time, and location of the opening of Price Bids will be advised in writing by the Employer. Bidders shall be given reasonable notice for the opening of Price Bids.

The Employer will notify Bidders in writing who have been rejected on the grounds of their Technical Bids being substantially non-responsive to the requirements of the Bidding Document and return their Price Bids unopened before inviting others, who are determined as being qualified, to attend the opening of Price Bids.

The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, publically in the presence of Bidders' representatives who choose to attend at the address, date and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.

All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded:

- (a) The name of the Bidder;
- (b) Whether there is a modification or substitution;
- (c) The Bid Prices, including any discounts and alternative offers; and
- (d) Any other details as the Employer may consider appropriate.

Only Price Bids and discounts, read out and recorded during the opening of Price Bids shall be considered for evaluation. No Bid shall be rejected at the opening of Price Bids.

If this Bidding Document allows Bidders to quote separate prices for different contracts, and the award to a single Bidder of multiple contracts, the methodology to determine the lowest evaluated price of the contract combinations is that which is most economical to the Employer.

IB.24 Process to be Confidential

- 24.1 Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of bid evaluation report which shall be done at least ten 10 days prior to issue of Letter of Acceptance. The announcement to all Bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the Employer's processing of bids or award decisions may result in the rejection of such bidder's bid. Whereas any bidder feeling aggrieved may lodge a written complaint not later than fifteen (15) days after the announcement of the bid evaluation report. However mere fact of lodging a complaint shall not warrant suspension of the procurement process.

IB.25 Clarification of Bids

To assist in the examination, evaluation and comparison of bids, the Employer may, at his discretion, ask any bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids in accordance with Clause IB.28.

If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its bid may be rejected.

IB.26 Examination of Bids and Determination of Responsiveness

Prior to the detailed evaluation of bids, the Employer will determine whether each bid is substantially responsive to the requirements of the Bidding Documents.

A substantially responsive bid is one which (i) meets the eligibility criteria; (ii) has been properly signed; (iii) is accompanied by the required Bid Security; (iv) Includes signed Integrity Pact where required as per clause IB.35 and (v) conforms to all the terms, conditions and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one (i) which affect in any substantial way the scope, quality or performance of the Works; (ii) which limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the bidder's obligations under the Contract; (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids. Only substantially responsive bid shall be considered for further evaluation.

If a bid is not substantially responsive, it may not subsequently be made responsive by correction or withdrawal of the non-conforming material deviation or reservation. The Employer may, however, seek confirmation/ clarification in writing which shall be responded in writing.

IB.27 Correction of Errors

Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- (a) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
- (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.

The amount stated in the Letter of Price Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected Bid Price, his Bid will be rejected, and the Bid Security shall be forfeited in accordance with IB.15.6 (b) hereof.

IB.28 Evaluation and Comparison of Bids

The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26.

In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

- (a) Making any correction for errors pursuant to Clause IB.27;
- (b) Excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
- (c) Making an appropriate adjustment for any other acceptable variation or deviation.

The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

If the Bid of the successful bidder is seriously unbalanced in relation to the Employer's estimate of the cost of work to be performed under the Contract, the Employer may require the bidder to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the Performance Security set forth in Clause IB.32 be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the Contract.

F. AWARD OF CONTRACT

IB.29 Award

Subject to Clauses IB.30 and IB.34, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding Documents and who has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be eligible in accordance with the provisions of Clause IB.3 and qualify pursuant to IB 29.2.

The Employer, at any stage of the bid evaluation, having credible reasons for or prima facie evidence of any defect in bidder's capacities, may require the bidders to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not:

Provided that such qualification shall only be laid down after recording reasons in writing. They shall form part of the records of that bid evaluation report.

IB.30 Employer's Right to Accept any Bid and to Reject any or all Bids

- 30.1 Notwithstanding Clause IB.29, the Employer reserves the right to accept or reject any Bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidders or any obligation except that the grounds for rejection of all bids shall upon request be communicated to any bidder who submitted a bid, without justification of grounds. Rejection of all bids shall be notified to all bidders promptly.

IB.31 Notification of Award

Prior to expiration of the period of bid validity prescribed by the Employer, the Employer will notify the successful bidder in writing ("Letter of Acceptance") that his Bid has been accepted. This letter shall name the sum which the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the "Contract Price").

No Negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted.

The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Employer and the bidder till signing of the formal Contract Agreement.

Upon furnishing by the successful bidder of a Performance Security, the Employer will promptly notify the other bidders that their Bids have been unsuccessful and return their bid securities.

IB.32 Performance Security

The successful bidder shall furnish to the Employer a Performance Security in the form and the amount stipulated in the Bidding Data Sheet and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance.

Failure of the successful bidder to comply with the requirements of IB.32.1 or IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

IB.33 Signing of Contract Agreement

Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Employer will send the successful bidder the Contract Agreement in the form provided in the Bidding Documents, incorporating all agreements between the parties.

The formal Agreement between the Employer and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the Employer.

IB. 34 General Performance of the Bidders

The Employer reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts/works. The Employer may in case of consistent poor performance of any Bidder as reported by the employers of the previously awarded contracts, interalia, reject his bid and/or refer the case to the Pakistan Engineering Council (PEC). Upon such reference, PEC in accordance with its rules, procedures and relevant laws of the land take such action as may be deemed appropriate under the circumstances of the case including black listing of such Bidder and debarring him from participation in future bidding for similar works.

IB.35 Integrity Pact

The Bidder shall sign and stamp the Integrity Pact provided at Appendix-L to Bid in the Bidding Documents for all Federal Government procurement contracts exceeding Rupees ten million. Failure to provide such Integrity Pact shall make the bidder non-responsive.

IB.36 Instructions not Part of Contract

Bids shall be prepared and submitted in accordance with these Instructions which are provided to assist bidders in preparing their bids, and do not constitute part of the Bid or the Contract Documents

BIDDING DATA SHEET

Bidding Data Sheet

Instructions to Bidders

Clause Reference

1.1 Name and address of the Employer:

1.1 Installation of Solar Street Lights in Gilgit City (Phase-IV)

Scope of work:

- *Procurement & Installation of Solar Street Lights.*

2.1 Name of the Borrower/Source of Financing/Funding Agency:

Gilgit Development Authority (GDA), Government of Gilgit-Baltistan through ADP Scheme.

2.1 Amount and type of financing:

90.590 Million Through Gilgit-Baltistan Annual Development Plan

8.1 Time limit for clarification:

28 Days

10.1 Bid language:

English

(A) The Bidder shall submit with its Technical Bid the following documents:

- (a) Letter of Technical Bid
- (b) Bid Security (IB.15)
- (c) Written confirmation authorizing the signatory of the Bid to commit the Bidder (IB.18.5)

- (d) Pending litigation information
- (e) Special Stipulations (as filled by the Employer) (Appendix –A)
- (f) Proposed Construction Schedule (Appendix –E)
- (g) Method of Performing the Work (Appendix –F)
- (h) Availability of Critical Equipment (Appendix –G)
- (i) Construction Camp and Housing Facilities (Appendix –H)
- (j) List of Sub-contractors (as required) (Appendix –I)
- (k) Organization Chart for Supervisory Staff (Appendix –K)
- (l) Integrity Pact (Appendix –L)
- (m) Qualification Criteria (Appendix –M)
- (n) Financial Soundness Past Performance, Current
Commitment, Qualification and Experience (Appendix –N)

11.1(B) The Bidder shall submit with its Price Bid the following documents:

- (a) Letter of Price Bid
- (b) Foreign Currency Requirements (Appendix –
B) (If required and only in case of International Bidding)
- (c) Price Adjustment under Clause 70 (Appendix –C)
- (d) Bill of Quantities (Appendix –D)
- (e) Estimated Progress Payments (Appendix –J)

413.1 The unit rates and the prices shall be quoted by the Bidder entirely in Pakistani Rupees and likewise payments will also be made entirely in Pakistani Rupees.

14.1 Period of Bid Validity:

90 Days

15.1 Amount of Bid Security:

The Bid Security shall be an amount of Pak Rs. 1.800 Million Pak Rupees in shape of Call at deposit only and accompanied with Technical bid without which bidder shall be disqualified.

17.1 Venue, time, and date of the pre-Bid meeting:

Venue: Office of the Deputy Director (Engineering), Gilgit Development Authority, Yadgar Chowk, Khomer, Gilgit

Time: 1100 Hours

Date: 16th October, 2024

18.4 Number of copies of the Bid to be completed and returned:

One Original & One Copy of Technical Bid whereas **One original of Financial Bid.**

19.2(a) Employer's address for the purpose of Bid submission:

Office of the Deputy Director (Engineering), Gilgit Development Authority, Yadgar Chowk, Khomer, Gilgit.

19.2(b) Name and Number of the Contract:

Employer's address for the purpose of Bid Submission is as follows:-

Deputy Director (Engineering)

Gilgit Development Authority (GDA), Yadgar Chowk, Khomer, Gilgit-Pakistan

Telephone: +92- 05811-922306-7

Fax: +92 -05811-922518

E-mail: gdagilgit@gmail.com

20.1(a) Deadline for submission of bids:

16-10-2024 at or before 11:00 AM Pakistan Standard Time

23.1 Venue, time, and date of Bid opening:

Venue: Office of the Deputy Director (Engineering), Gilgit Development Authority, Yadgar Chowk, Khomer, Gilgit

Time: *1130 Hours*

Date: *16th October, 2024*

Standard form and amount of Performance Security acceptable to the Employer:

The Performance Security shall be 10% of Contract Amount mentioned in the Letter of Acceptance on the prescribed form [PS-1] in shape of Bank Guarantee from any Scheduled Bank or any AA rated Insurance company of Pakistan in favor of the Employer.

**Letters of Technical Bid/ Price Bid,
And
Appendices to Bid**

Letter of Technical Bid

Date:

Bid Reference No:
(Name of Contract/Works)

To:

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB) 9;
- (b) We offer to execute and complete in conformity with the Bidding Documents the following Works:
- (c) Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) As security for due performance of the under takings and obligations of our bid, we submit here with a Bid security, in the amount specified in Bidding Data Sheet, which is valid (at least) 28 days beyond validity of Bid itself.
- (e) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process, other than alternative offers submitted in accordance with IB16 (as applicable) .

LTB-2

- (f) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bidding Data Sheet.

Name

In the capacity of

Signed

.....

Duly authorized to sign the Bid for and on behalf of

Date

.....

Address.....

Letter of Price Bid

Date:

Bid Reference No:
(Name of Contract/Works)

To:

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB)9;
- (b) The total price of our Bid, excluding any discounts offered in item (c) below is:
- (c) The discounts offered and the methodology for their application are:
- (d) Our Bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

- (f) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed and we do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
- (g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (h) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bidding Data Sheet.
- (i) If awarded the contract, the person named below shall act as Contractor's Representative.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Address.....

SPECIAL STIPULATIONS**Clause
Conditions of Contract**

1.	Engineer's Authority to issue Variation in emergency	2.1	2% of the Contract Price stated in the Letter of Acceptance.
2	Amount of Performance Security	10.1	The Performance Security shall be 10% of Contract Amount mentioned in the Letter of Acceptance.
3.	Time for Furnishing Programme	14.1	Within 14 days from the date of receipt of Letter of Acceptance.
4.	Minimum amount of Third Party Insurance	23.2	Rs. 0.500 Million per occurrence with number of occurrences unlimited.
5.	Time for Commencement	41.1	Within 14 days from the date of receipt of Engineer's Notice to Commence which shall be issued within Seven (07) days after receipt of Letter of Acceptance.
6.	Time for Completion	43.1, 48.2	180 Days from the date of Commencement of the Project.
7.	a) Amount of Liquidated Damages	47.1	0.01 % of the Contract Price for each day of delay incompletion of the Works subject to a maximum of 10% of Contract Price stated in the Letter of Acceptance.
	b) Amount of Bonus	47.3	Not Applicable
8.	Defects Liability Period	49.1	365 days from the effective date of Taking Over Certificate.
9.	Percentage of Retention Money	60.2	10% of the amount of Interim Payment Certificate.
10.	Limit of Retention Money	60.2	5% of Contract Price stated in the Letter of Acceptance.
11.	Minimum amount of Interim Payment Certificates (Running Bills)	60.2	
12.	Time of Payment from delivery of Engineer's Interim Payment Certificate to the Employer.	60.10	30 days
13.	Compensation for delayed payment	60.10	Not Applicable
14.	List of material	60.11 60.1(c)	NOT USED
15.	Mobilization Advance (Interest Free)	60.12	10 % of Contract Price stated in the Letter of Acceptance in Shape of Bank Guarantee from any Scheduled Bank or AA rating insurance company in Pakistan.

FOREIGN CURRENCY REQUIREMENTS
(If required and only in case of International Bidding)

Not Used

PRICE ADJUSTMENT UNDER CLAUSE 70 OF CONDITIONS OF CONTRACT

(NOT USED)

The source of indices and the weightages or coefficients for use in the adjustment formula under Clause 70 shall be as follows:

(To be filled by the Employer)

Cost Element	Description	Weightages	Applicable index
1	2	3	4
(i)	Fixed Portion	0.350	
(ii)	Local Labour (Skilled & Unskilled) With unskilled as representative items.		Government of Pakistan (GP) Federal Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(iii)	Cement – in bags. Portland cement shall be considered representative items for all types of cement.		“ “ “
(iv)	Reinforcing Steel. 1/2 “diameter round bar is the representative item for all types of steel to be used in this project.		“ “ “
(v)	High Speed Diesel (HSD)		“ “ “
(vi)	Bricks		.
(vii)	Bitumen		“ “ “
(viii)			“ “ “
	Total	1.000	“ “ “

Notes:

- 1) Indices for “(ii)” to “(vii)” are taken from the Government of Pakistan Federal Bureau of Statistics, Monthly Statistical Bulletin. The base cost indices or prices shall be those applying 28 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
- 2) Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.
- 3) Fixed portion shown here is for typical road project, Employer to determine the weightage of Fixed Portion considering only those cost elements having cost impact of seven (7) percent or more on his specific project.

(Employers using this price adjustment provisions may add or delete any elements as deemed appropriate to the project.)

Appendix-D

BILL OF QUANTITIES**A. Preamble**

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract (in case of item not mentioned in Bill of Quantities).
3. The rates and prices entered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the contract include all costs of contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the contract. Furthermore all duties, taxes and other levies payable by the contractor under the contract, or for any other cause, as on the date 14 days prior to dead line for submission of Bids in case of ICB/NCB respectively, shall be included in the rates and prices and the total bid price submitted by the bidder.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities and shall not be paid separately.
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the works.
6. General directions and description of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the bidding documents shall be made before entering prices against each item in the priced Bill of Quantities.
7. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with sub-clause 13.5 of Part I, General Conditions of Contract.
8. Contractor will submit his submittal to Engineer/Employer in case of Non-scheduled items for approval prior to booking to supplier/manufacturer before undertaking the item into execution. Submittal proposed from contractor must comprise minimum three proposed manufacturers to be submitted to Engineer for approval purposes. It will be discretion of Engineer to recommend for approval one of them or as contractor for other

Appendix-D

than those manufacturers proposed in shapeof submittal by contractor for someone else on equivalency basis.

9. Work program of level three must be submitted to Engineer/employer along with submittal.

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BILL OF QUANTITIES

General Abstract of Cost

NAME OF WORK: INSTALLATION OF SOLAR STREET LIGHTS IN GILGIT CITY (PHASE-IV)

S.No	Description	Amount
1		
	Total Amount	

ASSISTANT DIRECTOR (Engineering)
GILGIT DEVELOPMENT AUTHORITY

DEPUTY DIRECTOR (Engineering)
GILGIT DEVELOPMENT AUTHORITY

Appendix-D

Name of Project : Installation of Solar Street Lights in Gilgit City (Phase-IV)

Sub Head 1: Procurement and installation of Solar Street lights.

S.#	Description	Qty	Rate	Unit	Amount
1	<p>Integrated Solar Lamp (2-in-One) LED Module. 60W, >180lm/w, super Bright Philips3030 led chip.</p> <ul style="list-style-type: none"> • Compatible with multiple battery types (LiFePO4) • Pressure die-cast aluminum housing for sturdiness and excellent thermal management. • Lifespan >50000hrs • 3 rainy days backup <p>Lithium Battery (LiFepO4) Specs: LiFePO4 Battery > 1075.2 WH (42AH/ 25,6V). Life Cycles >50000 on DoD 90% or above. Built-in Charge Controller: 20 Amp, Auto dusk to down integrated MPPT controller.</p> <ul style="list-style-type: none"> • Configurable dimming profile and load wattage. <p>Working temperature ; - 30 °C ~ + 60 °C Overall product IP67 rating. 3 Year Warranty. (MR)</p>	256.00		Each	
2	<p>Solar Panel :- (including wire connencted with lamp) Nominal Max. Power: 360 W Opt. Operating Voltage: 36.0 V Application Classification: Class A Power Tolerance: 0 ~ + 5 W Wind load: up to 3600 Pa* Better shading tolerance: 42°C warranty 10-year replacement and a 25-year performance warranty. (MR)</p>	256.00		Each	
3	<p>Octagonal Street Light Pole (Double Arm) Including Panel Mounting Structure. The pole should have following attributes.</p> <ul style="list-style-type: none"> • Hot dip Galvanized Iron (GI) 80 > Microns • Height 8 Meter • Thickness 5 mm • Arm length 1.5 Meter • 4 No Stiffners • Top Dia = 75mm • Base Dia = 180mm • Boom Angle = 15° • Base plate = 400 x 400 x 12 mm (MR) 	30.00		Each	

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4	Octagonal Street Light Pole (Single Arm) Including Panel Mounting Structure. The pole should have following attributes. • Hot dip Galvanized Iron (GI) 80 > Microns• Height 7 Meter• Thickness 5 mm• Arm length 1.5 Meter• 4 No Stiffners • Top Dia = 75mm• Base Dia = 180mm• Boom Angle = 15° • Base plate = 400 x 400 x 12 mm (MR)	196.00		Each	
5	Pole Foundation. P/L (1:2:4) c.c (2'x2'x4') Size including galvanized nuts, J Bolts .and washers etc complete and disposal of excavated surplus earth and back filling etc complete as per instructions of engineer In-charge (MR).	226.00		P.Job	
Total					

ASSISTANT DIRECTOR (Engineering)
GILGIT DEVELOPMENT AUTHORITY

DEPUTY DIRECTOR (Engineering)
GILGIT DEVELOPMENT AUTHORITY

Appendix-D

BILL OF QUANTITIES**B. Daywork Schedule****General**

1. Reference is made to Sub-Clause 52.4 of the General Conditions of Contract Part-I. Work shall not be executed on a day work basis except by written order of the Engineer. Bidders shall enter basic rates for Daywork items in the Schedules, which rates shall apply to any quantity of Daywork ordered by the Engineer. Nominal quantities have been indicated against each item of Daywork, and the extended total for Daywork shall be carried forward to the Bid Price.

Daywork Labour

2. In calculating payments due to the Contractor for the execution of Daywork, the actual time of classes of labour directly doing the Daywork ordered by the Engineer and for which they are competent to perform will be measured excluding meal breaks and rest periods. The time of gangers (charge hands) actually doing work with the gang will also be measured but not the time of foreman or other supervisory personnel.
3. The Contractor shall be entitled to payment in respect of the total time that labour is employed on Daywork, calculated at the basic rates entered by him in the Schedule of Daywork Rates for labour together with an additional percentage, payment on basic rates representing the Contractor's profit, overheads, etc., as described below:
 - a) the basic rates for labour shall cover all direct costs to the Contractor, including (but not limited to) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances and any sums paid to or on behalf of such labour for social benefits in accordance with Pakistan law. The basic rates will be payable in local currency only; and
 - b) the additional percentage payment to be quoted by the Bidder and applied to costs incurred under (a) above shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities and insurances and allowances to labour timekeeping and clerical and office work; the use of consumable stores, water, lighting and power; the use and repair of stagings, scaffolding, workshops and stores, portable power tools, manual plant and tools; supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing.

PROPOSED CONSTRUCTION SCHEDULE

Pursuant to Sub-Clause 43.1 of the General Conditions of Contract, the Works shall be completed on or before the date stated in Appendix-A to Bid. The Bidder shall provide as Appendix-E to Bid, the Construction Schedule in the bar chart (CPM, PERT or any other to be specified herein) showing the sequence of work items and the period of time during which he proposes to complete each work item in such a manner that his proposed programme for completion of the whole of the Works and parts of the Works may meet Employer's completion targets in days noted below and counted from the date of receipt of Engineer's Notice to Commence (Attach sheets as required for the specified form of Construction Schedule):

<u>Description</u>	<u>Time for Completion</u>
a) Whole Works	_____ days
b) Part-A	_____ days
c) Part-B	_____ days
d) _____	_____ days
e) _____	_____ days

METHOD OF PERFORMING THE WORK

The Bidder is required to submit a narrative outlining the method of performing the Work. The narrative should indicate in detail and include but not be limited to:

1. Organization Chart indicating head office and field office personnel involved in management and supervision, engineering, equipment maintenance and purchasing.
2. Mobilization in Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.
3. The method of executing the Works, the procedures for installation of equipment and machinery and transportation of equipment and materials to the site.
4. Quality control / Quality assurance measures to be adopted including procedures to be followed for carrying out all tests required under specifications.

LIST OF MAJOR EQUIPMENT – RELATED ITEMS

The Bidder will provide a list of all major equipment and related items, under separate heading for items owned, to be purchased or to be arranged on lease by him to carry out the Works. The information shall include make, type, capacity, and anticipated period of utilization for all equipment which shall be in sufficient detail to demonstrate fully that the equipment will meet all requirements of the Specifications.

LIST OF MAJOR EQUIPMENT

Owned Purchased or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Condition	Present Location or Source	Date of Delivery at Site	Period of Work on Project
1	2	3	4	5	6	7
a. Owned						
b. To be Purchased						
c. To be arranged on Lease						

Equipment:

The Bidder must demonstrate that it has the key equipment listed hereafter:

No.	PLANT/EQUIPMENT				
	Equipment Type and Characteristics	Total Nos. available	Under Utilization on other projects, if applicable	Nos. waiting to be shifted to new project(s)	Min. Number Required for this Project
1					
2					
3					
4					
5					
6					

CONSTRUCTION CAMP AND HOUSING FACILITIES

The Contractor in accordance with Clause 34 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.

The Contractor shall be responsible for pumps, electrical power, water and electrical distribution systems, and sewerage system including all fittings, pipes and other items necessary for servicing the Contractor's construction camp.

The Bidder shall list or explain his plans for providing these facilities for the service of the Contract as follows:

1. Site Preparation (clearing, land preparation, etc.).
2. Provision of Services.
 - a) Power (expected power load, etc.).
 - b) Water (required amount and system proposed).
 - c) Sanitation (sewage disposal system, etc.).
3. Construction of Facilities
 - a) Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).
 - b) Warehouses and Storage Areas (area required, type of construction and layout).
 - c) Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).
4. Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).

5. Other Items Proposed (Security services, etc.). The Contractor should mention here what are his proposed environmental measures for the project as per EPA rules like treatment of wastewater and water quality etc. The Contractor shall submit a detailed EMP (Environmental Management Plan) to describe how materials are removed from site and disposed off at a safe location, prevention for the contamination of ground and surface water in neighboring areas etc. including remedial measures for adoption.

6. Detail of testing Lab with testing equipment etc.

ESTIMATED PROGRESS PAYMENTS

Bidder's estimate of the value of work which would be executed by him during each of the periods stated below, based on his Programme of the Works and the Rates in the Bill of Quantities, expressed in thousands of Pakistani Rupees:

Quarter/ Year/ Period	Amounts (1,000 Rs.)
1	2
Ist Quarter	
2 nd Quarter	
3 rd Quarter	
4 th Quarter	
.....	
.....	
.....	
.....	
.....	
Bid Price	

**ORGANIZATION CHART
FOR THE
SUPERVISORY STAFF AND LABOUR**

(INTEGRITY PACT)

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE
BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN
CONTRACTS WORTH RS. 10.00 MILLION OR MORE**

BM-1

Contract No. _____ Dated _____
 Contract Value: _____
 Contract Title: _____

..... [Name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GoP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[Name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [name of Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

Name of Employer:
 Signature:
 [Seal]

Name of Contractor:
 Signature:
 [Seal]

Qualification Criteria

Mandatory Conditions:

S.#	Description	Yes (the applicant will be Eligible for further Evaluation) /No (the applicant will not be Eligible for further Evaluation) BM-1
1.	Registration with Pakistan Engineering Council (PEC) (C-4 or above) with field of specialization: EE06 = Specialized Lighting System EE11 = Solar, Solar Energy, Solar Energy System, Solar Installation, Solar Works, Installation of Solar power LED Lighting System.	If "YES" the applicant will be Eligible for further Evaluation for qualification (copy of valid PEC certificate shall be attached).
2.	Blacklisting from any Government/Semi-Government Department.	Original Affidavit on Stamp Paper that the firm has not been black listed from any Government/ Semi Government Department till date shall be provided.
3	Alternative Energy Development Board (AEDB) Registration	Firms shall have valid registration in C-4 category
4.	Firm must have latest Valid ISO-9001 certified quality management system certificate or equivalent.	Attach Valid documents (In case no documents provided, applicant will not be eligible for further evaluation /qualification.)
5	JV as per PEC criteria on stamp paper signed by authorized persons of both firms should be provided. Both JV partners must be registered with PEC.	In Case of JV, the joint venture should provide JV certificates and Agreement.
6	Authorized Dealership Certificate / Agency Agreement from Manufacturers	<ul style="list-style-type: none"> • Valid dealership certificate for solar panels • Valid dealership certificate for lithium batteries for street lights • Valid dealership certificate for LED light fixtures
7	Available Bank Balance	<ul style="list-style-type: none"> • Firms should provide an upto date available bank balance amounting to Rs. 30.000 Million PKR before date of advertisement.
8	Experience	Firms must have completed at least one project of Solar Street / Road Lights amounting to Rs. 50.000 Million or above. (If "Yes" the applicant will be eligible for further evaluation)

Note: Firm will only be eligible for further evaluation if they pass all the compulsory requirements mentioned above. In case of failure to meet any of the compulsory requirements, the firm will be disqualified.

A) The profiles/documents submitted by the firms shall be evaluated on the following criteria.

Sr. No.	Category	Weightage/Marks	BM-1
1.	Financial Soundness	30	
2.	Firm Experience Record	35	
3.	Personnel Capabilities	15	
4.	Equipment Capabilities	20	
	Total:	100	

Note:

Qualification status shall be decided on the basis of Pass/Fail basis. The applicant must secure at least 50% score in each category and overall, 70% to pre-qualify.

Only the “Pass” applicants would be allowed to participate in the bids.

Further detailed criteria for each category is given under each head as follows:

1. Financial Soundness

S No.	Description	Marks Assigned		Explanation for Marks Obtained
1	Available Bank Credit Line	15	5 10 15	<ul style="list-style-type: none"> 05 Marks will be given if the available bank credit line limit is equal to 50 Million. 10 Marks will be given if the available bank credit line limit is equal to 100 Million. 15 Marks will be given if the available bank credit line limit is equal to 200 Million or above.
2	Annual Turnovers in last 03 Years	08	04 06 08	<ul style="list-style-type: none"> 04 Marks will be given if the annual turnover for last 03 years is equal to 200 Million 06 Marks will be given if the annual turnover for last 03 years is equal to 300 Million Full Marks will be given in case of limit is 400 million or more. Annual Turnover should reflect in Financial Audited Balance Sheets.
3	Working Capital in last 3 Years	07	3 5 7	<ul style="list-style-type: none"> 03 Marks will be given if the available working capital for last three years is equal to 50 Million. 05 Marks will be given if the available working capital for last three years is equal to 100 Million. 07 Marks are given if the available working capital for last three years is equal to 150 million or more. Working Capital should reflect in Financial Audited Balance Sheets.
	Total Marks	30		Financial Soundness
Bank Certificates / Credit Lines must be counter signed by higher rank officer than the issuing authority				

2. Firm Experience Record

- Each Solar Street Lights Work Order/LOA value should be according to given criteria for completed projects. **BM-1**
- Work orders / LOA and Completion/ Performance Certificates to be attached as proof for completed Schemes / Projects.
- Work order / LOA for the on-going projects must be provided.
- Firms experience with Government departments, International NGOs, Donor Projects and UN Agencies with satisfactory performance certificate shall be considered.
- Contractors may provide address and contact numbers of above organizations for verification of their projects / experience claimed. Failing which the letters of acceptance / work will not be considered for evaluation.

S #	Description	Marks Assigned		Explanation for Marks Obtained
1	Projects of similar nature and complexity Completed in last Ten years. (Solar Based Installation system)	20	10 15 20	<ul style="list-style-type: none"> • 10 Marks will be given for 1 number of Scheme / Project worth Rs. 50.000 Million or above. • 15 Marks will be given for 2 numbers of Scheme / Project worth Rs. 50.000 Million or above. • 20 Marks will be given for 03 number of Scheme / Project worth Rs. 50.000 Million or above. • Work Order / Completion Certificates Should be attached
2	Projects of similar nature and complexity in-hand (Solar Based Installation system))	10	5 7.5 10	<ul style="list-style-type: none"> • 5 Marks will be given in case of 1 project worth 50.000 Million or above in-hand. • 7.5 Marks will be given in case of 2 project in-hand worth 50.000 Million or above. • 10 Marks will be given in case of 3 similar nature project in-hand worth amounting to Rs. 50.000 Million or above.
3	General Experience (Other than Solar)	05	05	<ul style="list-style-type: none"> • Full Marks will be given if the firm has completed at least one project more than 40.000 million.
	Firm Experience (Total Marks)		35	Firm Experience
Note: 100% marks will be given to the projects of exact similar nature work and other solar based installation will be rationalized as per scope of work.				

Personnel Capabilities

- CV's Recently Signed and dated, Evidence of Employment, PEC Registration for Engineers and Degrees to be provided with each Engineer / DAE.
- Engineers quoted must be Registered with the firm in PEC Will be considered for evaluation. **BM-1**
- For DAE degree or detail mark certificate shall be provided.

Sr. No.	Description	Marks Assigned	Explanation for Marks Obtained
1	B.Sc Engineers registered with Pakistan Engineering Council (PEC)	04	<ul style="list-style-type: none"> • Experience 2 Marks will be given if the experience of 01 no. of B.Sc./M.Sc. Electrical, Electronics/Mechanical/Civil Engineer is equal to 3 years or above. • 4 Marks will be given if the experience of 01 no. of B.Sc. Engineers Electrical / Electronic/Mechanical/Civil is equal to 05 years or above.
		06	<ul style="list-style-type: none"> • Strength of Engineers. • 3 Marks will be given if the total no. of Electrical / Mechanical / Electronics / Civil / Mechatronics Engineers registered with PEC are 2 nos. or above. • 6 Marks will be given if the total no. of Electrical / Mechanical / Electronics / Civil / Mechatronics Engineers registered with PEC are 4 nos. or above
2	Associate Engineer (DAE)	02	Experience (1-Marks): 01 Mark for Each Associate Engineer With 03 Year experience
		03	Strength of Associate Engineers (3 Marks) <ul style="list-style-type: none"> • 1.5 Marks will be given for each Associate Engineers (DAE) (Maximum of 3 marks will be given). • At least one DAE should be Electrical.
	Personnel Capabilities (Total Marks)	15	Personnel Capabilities

4.1 Equipment Compliance

- **No Mark will be awarded for incomplete documents as specified.**

Sr. #	Description	Marks Assigned		Explanation for Marks Obtained (Equipment should be made available for Inspection)
1	Authorized Dealership certificate/ Agency / Distribution Agreements from manufacturers meeting Approved Solar Specifications	04	02 01 01	<ul style="list-style-type: none"> • Valid dealership Certificate for Solar Panels -- 02 Mark • Valid dealership Certificate for Battery -- 01 Mark • Valid dealership Certificate for Charge Controller / Inverter -- 01 Mark • Firm must attach Dealership certificates, as well as Import or purchase documents, i.e: Invoice, Bill of Lading, Goods Declaration. Dealership without proof of purchase is NOT Acceptable.
2	Equipment compliance as Approved Solar Specification (Annex-1)	06	02 02 02	<ul style="list-style-type: none"> • Solar Module -- 02 Marks • Battery -- 02 Marks • Charge Controller / Inverter -- 02 Mark Data Sheets and Certificates of the products as per approved specifications must be attached.
	Total Marks	10		Equipment Capability

4.2 Equipment Capability & Equipment Compliance

- **Make, Serial Number and Actual Photos taken from the tools / equipment owned by the firm must be provided.**

Sr. No.	Description	Marks Assigned	Explanation for Marks Obtained (Equipment should be made available for Inspection after acceptance letter)
1	PV Analyzer	4	Full marks for one equipment (Provide make/Model, Serial Number and Photo)
2	Insulation resistance tester (Megger)	2	Full marks for one each equipment (Provide make/Model, Serial Number and Photo)
3	Ultrasonic Thickness meter	1	Full marks for one each equipment (Provide make/Model, Serial Number and Photo)
4	Ultrasonic Coating Thickness meter	1	Full marks for one each equipment (Provide make/Model, Serial Number and Photo)
5	Workshop facility	2	<ul style="list-style-type: none"> • Half Marks for Workshop outside Gilgit • Full marks will be given for Local (Gilgit) Workshop (Attach Layout Sketch, coordinates, address proof and pictures along with equipment details of Workshop should be provided)
	Total Marks	10	Equipment Capability

Joint Venture (JV)

Joint Venture must comply with the following requirements: -

- a) Following are minimum qualification requirements: -
 - i) The lead partner shall meet not less than **40** percent of all qualifying criteria given in paras A (1, 2, 3, 4) heretofore.
 - ii) Associate partner shall meet not less than **25** percent of all the qualifying criteria given in paras A (1, 2, 3, 4)
- b) Any change in a prequalified JV after prequalification, shall be subject to the written approval of the Employer prior to the deadline for submission of bids. Such approval may be denied if:-
 - i) Partner(s) withdraws from a JV and remaining partners do not meet the qualifying requirements;
 - ii) The new partners to a JV are not qualified individually or as another JV; or
 - iii) In the opinion of the Employer, a substantial reduction in competition would result.
- c) Bid shall be signed by all members in the JV so as to legally bind all partners, jointly and severally, and any bid shall be submitted with a copy of the JV agreement providing the joint and several liability with respect to the contract.
 - i. The prequalification of a JV does not necessarily prequalify any of its partners individually or as a partner in any other JV or association. In case of dissolution of a JV, each one of the constituent firms may prequalify if they meet all the prequalification requirements and any partner of J.V has requested/shall request for the same and then his prequalification shall be subject to the written approval of the Employer.

Note: Aggregate Qualifying Score is minimum 70%, but it is mandatory to obtain at least 50% in each of the following sections. Price Bid of those Contractors who failed to secure minimum qualifying marks shall be returned un-opened.

1 SOLAR PANELS:

- a. The PV module(s) shall contain mono crystalline silicon Grade-A Solar cells. (N-Type Mono PV Cell Modules and Bifacial Double Glass Modules due to its better performance will be given preference).
- b. The PV module should Work well with high-voltage input Inverters/ charge controllers (1000 Vdc).
- c. The PV Panel must have clear anodized aluminum frame with Anti-reflective, hydrophobic, low-iron Tempered cover glass.
- d. The Solar Modules shall meet the following valid IEC Standards or latest:
 - (IEC 61215-1, IEC 61215-1-1, IEC 61215-2):2016 (Design Qualification)
 - IEC61730-1:2016 (Safety - Requirements for construction)
 - IEC61730-2:2016 (Safety - Requirements for testing)
 - IEC TS-62804-1. (i.e: TUV PPP-58042 or Equivalent) Anti-PID Certification.
 - IEC 61701 Salt Mist Corrosion Resistance Test (Latest)
 - IEC 62716 Ammonia Corrosion Resistance Test (Latest)
 - IEC 60068-2-68 Sand and Dust Erosion Resistance Test.
- e. Unique Serial number, Name / Logo of the manufacturer and should be laminated inside the module so as to be clearly visible from the front side.
- f. A properly laminated sticker containing the following details should be available at the back side of the module.
 - Name of the manufacturer / distinctive logo.
 - Model Name and Type of Cell Technology.
 - Peak Watt Rating (Wp) and Power Tolerance Range
 - Voltage (V_{mp}) and Current (I_{mp}) at STC
 - Open Circuit Voltage (Voc) and Short Circuit Current (Isc)
 - Maximum System Voltage (V_{dc}) (i.e: This should not be less than 1000 V_{dc})
 - Dimensions of PV Module
 - Test Standard(s) to which the module has been tested and certified.
- g. Following essential technical parameters of solar panel/modules should be provided with each panel supplied as well as in the technical proposal.
 - I-V curve for the solar photovoltaic module/panel.
 - Date and year of obtaining IEC PV module standardization qualification certificate.
 - Electrical Data (i.e: Pmax, Voc/Vmp, Isc/Imp at nominal Cell Operating Temperature (NOCT)).
 - PV Module efficiency at STC.
 - Working temperature range of PV Module.
- h. Each panel should have factory equipped weather proof terminal junction box having at least IP67 protection with the provision of opening for replacement of DC cables, blocking diodes

and easy debugging if necessary.

- i. Limited performance guarantee: panel power, in standard conditions, will not be less than 90% of nominal power by the end of 10 years of operation and at least 80% at the end of 25 years of operation with 25-year limited power warranty.
- j. The PV Module should have at least 10-years warranty for any defects and efficiency as mentioned above. It should be provided On Stamp Paper Signed and Sealed by Contractor at the time of Handing/Taking Over.
- k. The PV Module should have at-least 17.50 % Module efficiency with Positive Power Tolerance.
- l. The PV modules offered should not be more than 12 months old from the date of issue of the work order.
- m. PV Module should have minimum Snow Load bearing of 5400 Pa and Wind Load Bearing of 2400 pa however if the department deems appropriate may go for 3800 pa wind load depending upon their requirement.
- n. The Solar Module should be free from visual and cosmetics defects.
- o. The department/consultant on the expense of contractor/supplier shall verify Flash test reports with serial numbers from the manufacturer for each panel (at the time of supply).
- p. All information regarding solar panels with above mentioned featured data should be accessible and verifiable online on the manufacturer's website.
- q. IEC accredited lab test for Solar Panels is mandatory.
- r. EL (Electro-luminous) test will be performed randomly for each individual project at the cost of the contractor/supplier.

2 12V 100AH LITHIUM BATTERIES:

- a. The battery should be 12V 100Ah Lithium LiFePO₄.
- b. The battery must ensure safe and reliable operation in the whole range of ambient temperatures from -5° C to +50° C.
- c. The maximum permissible self-discharge rate should not be more than 5 percent of rated capacity per month at 25° C.
- d. The battery shall have a certificate of compliances, issued by a recognized laboratory.
- e. Batteries should be in compliance with the product specifications provided in the technical proposals/catalogue.
- f. The batteries should have three years of comprehensive replacement warranty and shall have at least 04 years performance warranty of safe and reliable continuous operation.
- g. The battery shall meet the requirements and recommendations given in IEC 61427, IEC 60896 21/22 (For VRLA) or equivalent. Lab test reports for battery cycle life should be provided.
- h. The battery must support parallel connection to increase capacity in case of future expansion.

Each battery should have the following minimum information printed on battery:

- Model Number, Serial Number and Type of Battery
 - Rate Voltage and Capacity (AH) at discharge rate of 10 hours
 - Origin of made
 - Manufacturer Name with distinct logo
- i. The following information must be provided in the data sheet while submitting technical bid.
 - Certification/Test Standard(s) of the battery.
 - Information regarding cycles & self-discharge rate.
 - j. In case of rechargeable battery bank (having more than one battery), the interconnection shall be made using lead plated copper bus bars or properly insulated flexible copper conductors.
 - k. Battery disconnect switch/breaker of suitable size should be installed between batteries and inverter/charge controller.
 - l. The battery must have low self-discharge rate, no memory effect and no gassing.
 - m. Batteries should be housed in a vented compartment that prevents users from coming in contact with battery terminals. This compartment should be strong enough to accommodate weight of the battery. The entire enclosure must be constructed to last at least 15 years without maintenance. The battery enclosure should have a clean and neat appearance and should be made of corrosion resistant material.
 - n. Battery disconnect switch / Breaker of suitable size should be installed between batteries and inverter / charge controller.

2.1 Lithium Batteries (LiFePO4):

- 2.1.1 Cycle life of the Lithium LiFe PO4 battery before 80% capacity of initial capacity must be minimum **5750** cycles @50% depth of discharge (DOD) at discharge rate of 10 hours.
- 2.1.2 The battery must have integrated Battery Management System (BMS) to ensure battery safety and reliability
- 2.1.3 The BMS of the battery must have the following specifications:
- Temperature protection
 - Over charge protection
 - Low voltage disconnect
 - High voltage disconnect
 - Short circuit alarm function
 - Self-balancing function
 - The LiFePO4 Battery must have LED status and alarm indication.
- 2.1.4 The charge and discharge rate of the battery must be designed at 0.2C minimum but capable of handling 0.5C charge and discharge currents.

2.2 Battery and Controller Box:

- 2.2.1 The battery box should be made of hot dipped galvanized sheet of 80 microns.
- 2.2.2 The battery box must have vented compartment having inverted louvers.
- 2.2.3 For Pole Mounted Batteries, battery boxes must be made of minimum 16SWG sheet and must have proper locking arrangement for protection against theft
- 2.2.4 For underground battery installation, the battery box should be made of minimum 16SWG sheet and should be properly sealed to ensure protection against water. Proper cable glands and packing material should be used to ensure water proofing of the box
- 2.2.5 The battery and controller box should be at least IP65 having ingress protection.

2.3 Dry cell battery

- Maintenance-Free, Absorbent Glass Mat Technology
- Low Self Discharge
- Long Designed service Life, Deep Cycle
- Excellent Discharge Performance
- Environment Friendliness
- Wide suitability of ambient temperature range
- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system, emergency lighting system, security system
- Telecommunication Equipment

- Power source for portable devices or tools

1. Functional Parameter		5. Environment Temperature	
Nominal Voltage	2V	Discharge Temperature	-20~50°C
Nominal Capacity (10 hour rate)	1000Ah	Charge Temperature	-10~50°C
Number of Cells	2cells	Storage Temperature	-20~60°C
2. Rated Capacity at 25°C (77° F)		6. Inner Resistance &Max . Discharge Current	
10 hour rate (0.1C, 1.80V/cell)	1000Ah	Fully Charged battery at 25°C (77° F)	0.32mΩ
3 hour rate (0.25C, 1.75V/cell)	738Ah	Max. Discharge Current	1000A (5s)
1 hour rate (0.55C, 1.60V/cell)	508Ah	Short Circuit Current	3200A
3. Capacity affected by Temperature (10 hour rate)		7. Self-discharge at 25°C (77° F)	
40°C (104° F)	102%	Capacity after 3 month storage	92%
25°C (77° F)	100%	Capacity after 6 month storage	84%
0°C (32° F)	90%	Capacity after 9 month storage	74%
-15°C (5° F)	70%	Capacity after 12 month storage	65%
4. Dimension and Weight		8. Constant voltage charging at 25°C (77° F)	
Length	480mm	Cyclic use	2.35~2.4V
Width	175mm	Maximum charging current	250A
Height	333mm	Temperature compensation	-5mV/°C
Total Height	341mm	Float use	2.23~2.27V
Reference Weight	60kg	Temperature compensation	-3.3mV/°C

3 12/24V MPPT CHARGE CONTROLLER:

- a. The charge controller must be suitable for the required battery voltage, auto voltage recognition feature and capable of charging OPzV & Lithium Ferrous Phosphate (LiFePO4)
- b. The charge controller must be IP-67 rated or above for outdoor installation
- c. The charge controller must be Remote Controlled for parameter setting. The system must have the following feature:
 - Remote Parameter Setting and Monitoring
 - Remote control of the Lights (on/off, timer setting etc.)
- d. The charge controller must have MPPT technology
- e. The charge controller must have at least three stage flexible dimming function (0-100%)
- f. The maximum power point tracking (MPPT) efficiency must be minimum 97%
- g. It must have temperature compensation for charging batteries in higher temperatures.
- h. Charge controller must have the following protections:
 - PV Short circuit
 - PV reverse polarity
 - PV over voltage
 - PV over current
 - Battery over charging
 - Battery discharging
 - Battery reverse polarity protection
 - Load short circuit
 - Load overload protections
- i. It must have proper heat sink to dissipate excessive heat
- j. The charge controller must have protection for reverse flow of current through the PV modules
- k. Controller should have active port for GSM based communication for Remote Monitoring
- l. Mid Night based timing controller will be preferred
- m. The Solar Charge controller must have the following specification:
 - ISO 9001
 - CE Certified

Note: Product Brochure, Catalog and certificates must be attached with the Technical Bid

FORMS

**BID SECURITY
PERFORMANCE SECURITY
CONTRACT AGREEMENT
MOBILIZATION ADVANCE GUARANTEE/BOND
AND
INDEMNITY BOND FOR SECURED ADVANCE**

BID SECURITY
(Bank Guarantee)

Security Executed on _____
(Date)

Name of Surety (Bank) with Address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees . _____ (Rs. _____)

Bid Reference No. _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto

_____ (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated _____ for Bid No. _____ for _____ (Particulars of Bid) to the said Employer; and

WHEREAS, the Employer has required as a condition for considering said Bid that the Bidder furnishes a Bid Security in the above said sum from a Scheduled Bank in Pakistan or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan, to the Employer, conditioned as under:

- (1) that the Bid Security shall remain in force up to and including the date 28 days after the deadline for validity of bids as stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Surety is hereby waived;
- (2) that the Bid Security of unsuccessful Bidders will be returned by the Employer after expiry of its validity or upon signing of the Contract Agreement; and
- (3) that in the event of failure of the successful Bidder to execute the proposed Contract Agreement for such work and furnish the required Performance Security, the entire said sum be paid immediately to the said Employer pursuant to Clause 15.6 of the Instruction to Bidders for the successful Bidder's failure to perform.

NOW THEREFORE, if the successful Bidder shall, within the period specified therefore, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer in accordance with his Bid as accepted and furnish within twenty eight (28) days of his being requested to do so, a Performance Security with good and sufficient surety, as may be required, upon the form prescribed by the said Employer for the faithful performance and proper fulfilment of the said Contract or in the event of non-withdrawal of the said Bid within the time specified for its validity then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

BS-

PROVIDED THAT the Surety shall forthwith pay the Employer, the said sum upon first written demand of the Employer (without cavil or argument) and without requiring the Employer to prove or to show grounds or reasons for such demand, notice of which shall be sent by the Employer by registered post duly addressed to the Surety at its address given above.

PROVIDED ALSO THAT the Employer shall be the sole and final judge for deciding whether the Principal (Bidder) has duly performed his obligations to sign the Contract Agreement and to furnish the requisite Performance Security within the time stated above, or has defaulted in fulfilling said requirements and the Surety shall pay without objection the said sum upon demand from the Employer forthwith and without any reference to the Principal (Bidder) or any other person.

IN WITNESS WHEREOF, the above bounden Surety has executed the instrument under its seal on the date indicated above, the name and seal of the Surety being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

SURETY (Bank)

WITNESS:

Signature _____

1. _____

Name _____

Title _____

Corporate Secretary (Seal)

Corporate Guarantor (Seal)

2. _____

Name, Title & Address

**FORM OF PERFORMANCE SECURITY
(Bank Guarantee)**

Guarantee No. _____
Executed on _____
Expiry date _____

[Letter by the Guarantor to the Employer]

Name of Guarantor (Bank) with address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Contractor) with address: _____

Penal Sum of Security (express in words and figures) _____

Letter of Acceptance No. _____ Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the _____ (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the Employer's above said Letter of Acceptance for _____ (Name of Contract) for the _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 49, Defects Liability, of Conditions of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ (the Guarantor), waiving all objections and defences under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number.

PROVIDED ALSO THAT the Employer shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

<p>Witness:</p> <p>1. _____</p> <p>_____</p> <p>Corporate Secretary (Seal)</p> <p>2. _____</p> <p>_____</p> <p>Name, Title & Address</p>	<p>_____</p> <p>Guarantor (Bank)</p> <p>Signature _____</p> <p>Name _____</p> <p>Title _____</p> <p>_____</p> <p>Corporate Guarantor (Seal)</p>
---	---

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the _____ day of _____ (month) 20____ between _____ (hereafter called the "Employer") of the one part and _____ (hereafter called the "Contractor") of the other part.

WHEREAS the Employer is desirous that certain Works, viz _____ should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda / Clarification as agreed or otherwise, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Contract, viz:
 - (a) The Contract Agreement;
 - (b) The Letter of Acceptance;
 - (c) The completed Form of Bid;
 - (d) Special Stipulations (Appendix-A to Bid);
 - (e) The Particular Conditions of Contract – Part II;
 - (f) The General Conditions – Part I;
 - (g) The priced Bill of Quantities (Appendix-D to Bid);
 - (h) The completed Appendices to Bid (B, C, E to O);
 - (i) The Drawings;
 - (j) The Specifications.
 - (k) _____ (any other)
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

CA-

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed on the day, month and year first before written in accordance with their respective laws.

Signature of the Contactor

Signature of Employer

(Seal)

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address)

(Name, Title and Address)

MOBILIZATION ADVANCE GUARANTEE/BOND

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Employer') has entered into a Contract for _____
 _____ (Particulars of Contract)
 with _____ (hereinafter called the "Contractor").

AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Rupees _____ (Rs _____) which amount shall be advanced to the Contractor as per provisions of the Contract.

AND WHEREAS, the Employer has asked the Contractor to furnish Guarantee to secure the mobilization advance for the performance of his obligations under the said Contract.

AND WHEREAS, _____
 _____ (Scheduled Bank in Pakistan or Insurance Company acceptable to the Employer)
 (hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.

NOW, THEREFORE, the Guarantor hereby guarantees that the Contractor shall use the advance for the purpose of above mentioned Contract and if he fails and commits default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount.

Notice in writing of any default, of which the Employer shall be the sole and final judge, on the part of the Contractor, shall be given by the Employer to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection.

This Guarantee shall remain in force until the advance is fully adjusted against payments from the Interim Payment Certificates of the Contractor or until _____ whichever is earlier.

 (Date)

The Guarantor's liability under this Guarantee shall not in any case exceed the sum of Rupees _____ (Rs _____).

This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against payments from Interim Payment Certificates of the Contractor provided that the Guarantor agrees that the aforesaid period of validity shall be deemed to be extended if on the above mentioned date the advance payment is not fully adjusted.

GUARANTOR

- 1. Signature _____
- 2. Name _____
- 3. Title _____

WITNESS

1. _____
Corporate Secretary (Seal)

2. _____
(Name Title & Address)

Corporate Guarantor(Seal)

**INDEMNITY BOND
FOR SECURED ADVANCE
AGAINST MATERIALS BROUGHT AT SITE**

(ON RS.40 NONJUDICIAL STAMP PAPER)

This Deed of Indemnity is issued by M/s. _____
_____ (Name of the Contractor) in favour of
M/s. _____ (Name of the Employer).

Whereas _____ (hereinafter called the Employer) has paid the Secured Advance against the cost of material through any Bank or like agency by any other method by virtue of the terms of the contract existing between the parties. The details of the material and their price for which secured advance is being sought for the period _____ till consumption of the material is as under:-

- 1. _____ at Rs. _____ per _____ = Rs.
- 2. _____ at Rs. _____ per _____ = Rs.
- 3. _____ at Rs. _____ per _____ = Rs.
- 4. _____ at Rs. _____ per _____ = Rs.

THEREFORE THIS DEED OF INDEMNITY WITNESSETH AS FOLLOWS:

I/We _____ of M/s. _____ do hereby indemnify M/s _____ for all losses due to thefts, arson, pilferage, loss due to flood and inundation, shortage, deterioration and depreciation etc. through any act of Man or God or slump in the Market of any or all the materials financed or paid by the Employer on our request for financing payment against material.

I/We _____ shall indemnify _____ against any or all claims, action damages arising out of or resulting to the said material.

I/We _____ further declare that we will faithfully abide by the above declaration and solemnly affirm that we will not remove, sell, pilferage any of the materials against which M/s _____ has paid us such a secured advance and will not pledge the same with any Bank, Finance Corporation, Firm, Company, Individual or the like agency or create any change whereon in any from what so ever.

I/We _____ do hereby also declare that in the event of my/our infringement of the declaration made above _____ will be entitled to forfeit all such

material and also proceed against me/us according to the relevant clause pertaining to breach of contract and further invoke the power or seek any remedies secured of _____ under the contract Agreement signed with us or otherwise available under law.

Place _____ Dated _____

Contractor _____

[Notes on the Conditions of Contract]

IB-1

The Conditions of Contract comprise two parts:

- (a) **Part I - General Conditions of Contract**
- (b) **Part II - Particular Conditions of Contract**

Over the years, a number of “model” General Conditions of Contract have evolved. The one used in these Standard Bidding Documents was prepared by the International Federation of Consulting Engineers (Federation Internationale des Ingenieurs-Conseils, or FIDIC), and is commonly known as the FIDIC Conditions of Contract. (The used version is the fourth edition, 1987, reprinted in 1992 with further amendments).

The FIDIC Conditions of Contract have been prepared for an ad measurement (unit price or unit rate) type of contract, and cannot be used without major modifications for other types of contract, such as lump sum, turnkey, or target cost contracts.

The standard text of the General Conditions of Contract chosen must be retained intact to facilitate its reading and interpretation by bidders and its review by the Client. Any amendments and additions to the General Conditions, specific to the contract in hand, should be introduced in the Particular Conditions of Contract.

The use of standard conditions of contract for all civil Works will ensure comprehensiveness of coverage, better balance of rights or obligations between Employer and Contractor, general acceptability of its provisions, and savings in time and cost for bid preparation and review, leading to more economic prices.

The FIDIC Conditions of Contract are copyrighted and may not be copied, faxed, or reproduced. Without taking any responsibility of its being accurate, Pakistan Engineering Council with prior consent of FIDIC Secretariat, has reproduced herein the FIDIC General **Conditions of Contract for reference purpose only which cannot be used by the users** for preparing their bidding documents. The bidding document may include a purchased copy, the cost of which can be retrieved as part of the selling price of the bidding document. Alternatively, the FIDIC Conditions of Contract can be referred to in the bidding documents, and the bidders are advised to obtain copies directly from FIDIC.*

* Add the following text if the bidding documents, as issued, do not include a copy:

“Copies of the FIDIC Conditions of Contract can be obtained from:

FIDIC Secretariat

P.O. Box 86

1000

Lausa

ne 12

Switze

rland

e-mail: fidic.pub@fidic.org – FIDIC.org/book

GENERAL CONDITIONS OF CONTRACT

IB-1

The General Conditions of Contract (GCC) will be the “Conditions of Contract for Works of Civil Construction, Part-1 General Conditions” Fourth Edition (1987) Reprinted in 1988 with editorial amendments, Reprinted in 1992 with further amendments published by the Federation International Des Ingénieurs-Conseils (FIDIC). **These are not reproduced here in this document. Bidders must obtain One copy of the above mentioned Conditions of Contract after award of contract at bidder’s own expense.**



FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS

CONDITIONS OF CONTRACT

FOR WORKS OF CIVIL

ENGINEERING CONSTRUCTION

PART I GENERAL CONDITIONS

WITH FORMS OF TENDER AND AGREEMENT

FOURTH EDITION 1987

Reprinted 1988 with editorial amendments

Reprinted in 1992 with further amendments



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PART II - PARTICULAR CONDITIONS OF CONTRACT

The particular conditions shall complement, amend, or supplement the provisions in the General Conditions of Contract. Wherever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract **IB-1**

1.1 Definitions

(a) (i) The Employer is **Director Engineer, Gilgit Development Authority, River View road, Chinar Bagh, Gilgit.**

(a) (iv) The Engineer is _____ or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer. The shall be professional engineers as defined in Pakistan Engineering Council Act (V of 1976)

The following paragraph is added:

(a)(vi) "Bidder or Tenderer" means any person or persons, company, corporation, firm or joint venture submitting a Bid or Tender.

(b) (v) The following is added at the end of the paragraph:

The word "Tender" is synonymous with "Bid" and the word "Tender Documents" with "Bidding Documents".

The following paragraph is added:

(b)(ix) "Programme" means the programme to be submitted by the Contractor in accordance with Sub-Clause 14.1 and any approved revisions thereto.

(e)(i) The text is deleted and substituted with the following:

"Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works subject to such additions thereto or deductions therefrom as may be made and remedying of any defects therein in accordance with the provisions of the Contract.

2.1 Engineer's Duties and Authority

With reference to Sub-Clause 2.1(b), the following provisions shall also apply;

The Engineer shall obtain the specific approval of the Employer before carrying out his duties in accordance with the following Clauses:



-
- IB-1**
- (i) Consenting to the sub-letting of any part of the Works under Sub-Clause 4.1 “Subcontracting”.
 - (ii) Certifying additional cost determined under Sub-Clause 12.2 “Not Foreseeable Physical Obstructions or Conditions”.
 - (iii) Any action under Clause 10 “Performance Security” and Clauses 21,23,24 & 25 “Insurance” of sorts.
 - (iv) Any action under Clause 40 “Suspension”.
 - (v) Any action under Clause 44.1 “Extension of Time for Completion”.
 - (vi) Any action under Clause 47 “Liquidated Damages for Delay” or Payment of Bonus for Early Completion of Works (PCC Sub-Clause 47.3).
 - (vii) Issuance of “Taking Over Certificate” under Clause 48.
 - (viii) Issuing a Variation Order under Clause 51, except:
 - a) in an emergency* situation, as stated here below, and
 - b) if sum of all such variations during the contract period would increase the Contract Price by less than the amount stated in the Appendix-A to Bid..
 - (ix) Fixing rates or prices under Clause 52.
 - (x) Extra payment as a result of Contractor’s claims under Clause 53.
 - (xi) Release of Retention Money to the Contractor under Sub-Clause 60.3 “Payment of Retention Money”.
 - (xii) Issuance of “Final Payment Certificate” under Sub-Clause 60.8.
 - (xiii) Issuance of “Defect Liability Certificate” under Sub-Clause 62.1.

If in the opinion of the Engineer an emergency occurs affecting the safety of life or of the Works or of adjoining property, the Engineer may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such



instruction, in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.

IB-1

2.2 Engineer's Representative

The following paragraph is added:

The Employer shall ensure that the Engineer's Representative is a professional engineer as defined in the Pakistan Engineering Council Act 1975 (V of 1976).

The following Sub-Clauses 2.7 and 2.8 are added:

2.7 Engineer Not Liable

Approval, reviews and inspection by the Engineer of any part of the Works does not relieve the Contractor from his sole responsibility and liability for the supply of materials, plant and equipment for construction of the Works and their parts in accordance with the Contract and neither the Engineer's authority to act nor any decision made by him in good faith as provided for under the Contract whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their representatives or employees or any other person performing any portion of the Works.

2.8 Replacement of the Engineer

"If the Employer intends to replace the Engineer, the Employer shall, not less than 14 days before the intended date of replacement, give notice to the Contractor, of the name, address and relevant experience of the intended replacement Engineer. The Employer shall not replace the Engineer with a person against whom the Contractor raises reasonable objection by notice to the Employer, with supporting particulars."

5.1 Language(s) and Law

- (a) The Contract Documents, shall be drawn up in the English language.
- (b) The Contract shall be subject to the Laws of Islamic Republic of Pakistan.

5.2 Priority of Contract Documents

The documents listed at (1) to (6) of the Sub-Clause are deleted and substituted with the following:

- (1) The Contract Agreement (if completed);
- (2) The Letter of Acceptance;
- (3) The completed Form of Bid;



-
- (4) Special Stipulations (Appendix-A to Bid);
 - (5) The Particular Conditions of Contract – Part II;
 - (6) The General Conditions – Part I;
 - (7) The priced Bill of Quantities (Appendix-D to Bid);
 - (8) The Drawings;
 - (9) The Specifications
 - (10) The completed Appendices to Bid (B, C, E to O);and
 - (11)_____ (any other).

IB-1

In case of discrepancies between drawings, those of larger scale shall govern unless they are superseded by a drawing of later date regardless of scale. All Drawings and Specifications shall be interpreted in conformity with the Contract and these Conditions. Addendum, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.

The following Sub-Clauses 6.6 and 6.7 are added:

6.6 Shop Drawings

The Contractor shall submit to the Engineer for review 3 copies of all shop and erection drawings applicable to this Contract as per provision of relevant Sub-Clause of the Contract.

Review and approval by the Engineer shall not be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and that the Engineer's review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

6.7 As-Built Drawings

At the completion of the Works under the Contract, the Contractor shall furnish to the Engineer 6 copies and one reproducible of all drawings amended to conform with the Works as built. The price of such Drawings shall be deemed to be included in the Contract Price.

10.1 Performance Security

The text is deleted and substituted with the following:

The Contractor shall provide Performance Security to the Employer in the prescribed form as attached at Annexure PS-1. The said Security shall be furnished or caused to be furnished by the Contractor within 14 days



after the receipt of the Letter of Acceptance. The Performance Security shall be of an amount mentioned in Appendix A to Bid . Performance Security shall be in the form of either (a) bank guarantee from any Scheduled Bank in Pakistan or (b) bank guarantee from a bank located outside Pakistan duly counter-guaranteed by a Scheduled Bank in Pakistan. **IB-1**

The cost of complying with requirements of this Sub-Clause shall be borne by the Contractor.

The following Sub-Clause 10.4 is added:

10.4 Performance Security Binding on Variations and Changes

The Performance Security shall be binding irrespective of changes in the quantities or variations in the Works or extensions in Time for Completion of the Works which are granted or agreed upon under the provisions of the Contract.

14.1 Programme to be Submitted

The programme shall be submitted within the time stated in Appendix-A to bid, which shall be in the form of a bar chart identifying the critical activities prepared on a software approved by the Engineer.

14.3 Cash Flow Estimate to be Submitted

The detailed Cash Flow Estimate shall be submitted within 14- days from the date of receipt of Letter of Acceptance. Cash flows should be based on Programme and should be in such detail as to enable the Employer to arrange Funds.

The following Sub-Clause 14.5 is added:

14.5 Detailed Programme and Monthly Progress Report

- a) For purposes of Sub-Clause 14.1, the Contractor shall submit to the Engineer detailed programme for the following:
- (1) Execution of Works;
 - (2) Labour Employment;
 - (3) Local Material Procurement;
 - (4) Material Imports, if any; and
 - (5) Other details as required by the Engineer.



- (b) During the period of the Contract, the Contractor shall submit to the Engineer not later than the 8th day of the following month, 10 copies each **IB-1** of Monthly Progress Reports covering:
- (1) A Construction Schedule indicating the monthly progress in percentage;
 - (2) Description of all work carried out since the last report;
 - (3) Description of the work planned for the next 56 days sufficiently detailed to enable the Engineer to determine his programme of inspection and testing;
 - (4) Monthly summary of daily job record;
 - (5) Photographs to illustrate progress; and
 - (6) Information about problems and difficulties encountered, if any, and proposals to overcome the same.
- (c) During the period of the Contract, the Contractor shall keep a daily record of the work progress, which shall be made available to the Engineer as and when requested. The daily record shall include particulars of weather conditions, number of men working, deliveries of materials, quantity, location and assignment of Contractor's equipment.

The following Sub-Clauses 15.2 and 15.3 are added:

15.2 Language Ability of Contractor's Representative

The Contractor's authorized representative shall be fluent in the English language. Alternately an interpreter with ability of English language shall be provided by the Contractor on full time basis.

15.3 Contractor's Representative

The Contractor's authorized representative and his other professional engineers working at Site shall be professional engineers as defined in Pakistan Engineering Council Act (V of 1976)

The Contractor's authorized representative at Site shall be authorized to exercise adequate administrative and financial powers on behalf of the Contractor so as to achieve completion of the Works as per the Contract.

The following Sub-Clauses 16.3 and 16.4 are added:

16.3 Language Ability of Superintending Staff of Contractor

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the English language. If the Contractor's superintending



staff are not fluent in English language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.

IB-1

16.4 Employment of Local Personnel

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour from sources within Pakistan.

The following Sub-Clauses 19.3 and 19.4 are added:

19.3 Safety Precautions

In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the Safety Requirements of the Government of Pakistan with such modifications thereto as the Engineer may authorise or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose.

The Contractor shall make, maintain and submit reports to the Engineer concerning safety, health and welfare of persons and damage to property, as the Engineer may from time to time prescribe.

19.4 Lighting Work at Night

In the event of work being carried out at night, the Contractor shall at his own cost, provide and maintain such good and sufficient light as will enable the work to proceed satisfactorily and without danger. The approaches to the Site and the Works where the night-work is being carried out shall be sufficiently lighted. All arrangement adopted for such lighting shall be to the satisfaction of the Engineer's Representative.

20.4 Employer's Risks

The Employer's risks are:

Delete the text and substitute with the following:

- (a) insofar as they directly affect the execution of the Works in Pakistan:
 - (i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - (ii) rebellion, revolution, insurrection, or military or usurped power, or civil war,
 - (iii) ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,



- (iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
 - (v) riot, commotion or disorder, unless solely restricted to the employees **IB-1** of the Contractor or of his Subcontractors and arising from the conduct of the Works;
- (b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;
 - (c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
 - (d) any operation of the forces of nature (insofar as it occurs on the Site) which an experienced contractor:
 - (i) could not have reasonably foreseen, or
 - (ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - (a) prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - (b) insure against.

21.4 Exclusions

The text is deleted and substituted with the following:

There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by the risks listed under Sub-Clause 20.4 paras (a) (i) to (iv).

The following Sub-Clause 25.5 is added:

25.5 Insurance Company

The Contractor shall be obliged to place all insurances relating to the Contract (including, but not limited to, the insurances referred to in Clauses 21, 23 and 24) with either National Insurance Company of Pakistan or any other insurance company operating in Pakistan and acceptable to the Employer.

Costs of such insurances shall be borne by the Contractor.

The following Sub-Clause 31.3 is added:

31.3 Co-operation with other Contractors

During the execution of the Works, the Contractor shall co-operate fully with other contractors working for the Employer at and in the vicinity of the Site and also shall provide adequate precautionary facilities not to make himself a nuisance to local residents and other contractors.



The following Sub-Clauses 34.2 to 34.12 are added:

IB-1

34.2 Rates of Wages and Conditions of Labour

The Contractor shall pay rates of wages and observe conditions of labour not less favourable than those established for the trade or industry where the work is carried out. In the absence of any rates of wages or conditions of labour so established, the Contractor shall pay rates of wages and observe conditions of labour which are not less favourable than the general level of wages and conditions observed by other employers whose general circumstances in the trade or in industry in which the Contractor is engaged are similar.

34.3 Employment of Persons in the Service of Others

The Contractor shall not recruit his staff and labour from amongst the persons in the services of the Employer or the Engineer; except with the prior written consent of the Employer or the Engineer, as the case may be.

34.4 Housing for Labour

Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such housing accommodation and amenities as he may consider necessary for all his supervisory staff and labour, employed for the purposes of or in connection with the Contract including all fencing, electricity supply, sanitation, cookhouses, fire prevention, water supply and other requirements in connection with such housing accommodation or amenities. On completion of the Contract, these facilities shall be handed over to the Employer or if the

Employer so desires, the temporary camps or housing provided by the Contractor shall be removed and the Site reinstated to its original condition, all to the approval of the Engineer.

34.5 Health and Safety

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of his staff and labour at all times throughout the period of the Contract. The Contractor shall further ensure that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

34.6 Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as



may be made by the Government, or the local medical or sanitary authorities, for purpose of dealing with and overcoming the same.

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34.7 Supply of Water

The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer or his representative, adequate supply of drinking and other water for the use of his staff and labour.

34.8 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances and Government Regulations or Orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his Subcontractors, agents, staff or labour.

34.9 Arms and Ammunition

The Contractor shall not give, or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

34.10 Festivals and Religious Customs

The Contractor shall in all dealings with his staff and labour have due regard to all recognized festivals, days of rest and religious and other customs.

34.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst staff and labour and for the preservation of peace and protection of persons and property in the neighbourhood of the Works against the same.

34.12 Compliance by Subcontractors

The Contractor shall be responsible for compliance by his Subcontractors of the provisions of this Clause.

The following Sub-Clauses 35.2 and 35.3 are added:

35.2 Records of Safety and Health

The Contractor shall maintain such records and make such reports



concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe.

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35.3 Reporting of Accidents

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means.

The following Sub-Clause 36.6 is added:

36.6 Use of Pakistani Materials and Services

The Contractor shall, so far as may be consistent with the Contract, make the maximum use of materials, supplies, plant and equipment indigenous to or produced or fabricated in Pakistan and services, available in Pakistan provided such materials, supplies, plant, equipment and services shall be of required standard.

37.2 Inspection and Testing

Factory acceptance tests shall be witnessed by the personnel as stated in Specifications -Special Provisions Sub-Clause 14.2. All costs in connection with witnessing of the factory acceptance tests by 02 Officials shall be borne by the Contractor. These shall include the costs of air travel (economy class) from Pakistan to place of inspection/testing and back, hotel accommodation/boarding/lodging (as per actual), inland transportation and daily allowance @ US Dollars 100/- per day per person for inspection/testing to be conducted outside Pakistan not more than 06 days and Rs. 8000/- per day per person [besides other costs of travelling and lodging etc. (as above)] for inspection/testing to be conducted inside Pakistan for each visit of every person to witness these tests.

41.1 Commencement of Works

The text is deleted and substituted with the following:

The Contractor shall commence the Works on Site within the period named in Appendix-A to Bid from the date of receipt by him from the Engineer of a written Notice to Commence. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

The following Sub-Clause 47.3 is added:



47.3 Bonus for Early Completion of Works

The Contractor shall in case of earlier completion for either whole or part(s) of **IB-1** the Works pursuant to Sub-Clauses 48.1 and 48.2(a) respectively of the General Conditions of Contract, be paid bonus up-to a limit and at a rate prescribed in Appendix-A to Bid “Special Stipulations”.

51.2 Instructions for Variations

At the end of the first sentence, after the word “Engineer”, the words “in writing” are added.

52.1 Valuation of Variations

In the tenth line, after the words “Engineer shall” the following is added: within a period not exceeding one-eighth of the completion time subject to a minimum of 56 days from the date of disagreement whichever is later.

53.4 Failure to Comply

This Sub-Clause is deleted in its entirety.

54.3 Customs Clearance

Add following at the end of this Sub-Clause:
“However, obtaining customs clearance shall be the sole responsibility of the Contractor.”

54.5 Conditions of Hire of Contractor’s Equipment

The following paragraph is added:

The Contractor shall, upon request by the Engineer at any time in relation to any item of hired Contractor’s Equipment, forthwith notify the Engineer in writing the name and address of the Owner of the equipment and shall certify that the agreement for the hire thereof contains a provision in accordance with the requirements set forth above.

The following Sub-Clauses 59.4 & 59.5 are deleted and replaced as follows:

59.4 Payments to Nominated Subcontractors



The Contractor shall pay to the nominated Subcontractor the amounts which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with Clause 58 [Provisional Sums], except as stated in Sub-Clause 59.5 [Certification of Payments]. **IB-1**

59.5 Certification of Payments & Nominated Subcontractors

Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- a) submits reasonable evidence to the Engineer, or
- b) i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement,

then the Employer may (at his sole discretion) pay direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.

60.1 Monthly Statements

In the first line after the word "shall", the following is added:

"on the basis of the joint measurement of work done under Clause 56.1,"

In Para (c) the words "the Appendix to Tender" are deleted and substituted with the words " Sub-Clause 60.11 (a)(6) hereof".

60.2 Monthly Payments

In the first line, "28" is substituted by "30".

60.10 Time for Payment

Replace "28 days" with "14 days" in the 3rd line

The following Sub-Clause 60.11 is added:

60.11 Secured Advance on Materials

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- a) The Contractor shall be entitled, in accordance with Sub Clause 60.1 (c), to receive from the Employer Secured Advance against an indemnity bond acceptable to the Employer of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the Site but not yet incorporated in the Permanent Works provided that:-
- (1) The materials are in accordance with the Specifications for the Permanent Works;
 - (2) Such materials have been delivered to the Site and are properly stored and protected against loss or damage or deterioration to the satisfaction of the Engineer but at the risk and cost of the Contractor;
 - (3) The Contractor's records of the requirements, orders, receipts and use of materials are kept in a form approved



by the Engineer, and such records shall be available for inspection by the Engineer;

IB-1

- (4) The Contractor shall submit with his monthly statement the estimated value of the materials on Site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefor;
 - (5) Ownership of such materials shall be deemed to vest in the Employer and these materials shall not be removed from the Site or otherwise disposed of without written permission of the Employer; and
 - (6) The sum payable for such materials on Site shall not exceed 75 % of the (i) landed cost of imported materials, or (ii) ex-factory / ex-warehouse price of locally manufactured or produced materials, or (iii) market price of other materials.
- (b) The recovery of Secured Advance paid to the Contractor under the above provisions shall be effected from the monthly payments on actual consumption basis.

60.12 Financial Assistance to Contractor

- (a) An interest-free Mobilization Advance of 10 % of the Contract Price stated in the Letter of Acceptance shall be paid by the Employer to the Contractor in two parts upon submission by the Contractor of a Mobilization Advance Guarantee for the full amount of the Advance in the specified form from a Scheduled Bank in Pakistan acceptable to the Employer:
 - (1) First part equal to 10% of the Contract Price within 30days after signing of the Contract Agreement.
 - (2) Second part equal to 0% of the Contract Price within 21days from the date of payment of the first part, subject to
 - (i) the state of mobilization of the Contractor in accordance with the minimum requirement of Plant, Equipment and manpower as deemed appropriate by the Engineer.
 - (ii) Completion of at least 2% of permanent works (to be assessed by the Engineer)
- (b) "This Advance shall be recovered in instalments from monthly payments; first instalment at first Interim payment Certificate of work done at the rate of **25%** of work done and the last instalment before the date of completion of the Works as per Clause 43 hereof. The Engineer may vary the percentage of



recovery of advance in order to complete the recovery prior to the time of completion."

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63.1 Default of Contractor

The following para is added at the end of the Sub-Clause:

Provided further that in addition to the action taken by the Employer against the Contractor under this Clause, the Employer may also refer the case of default of the Contractor to Pakistan Engineering Council for punitive action under the Construction and Operation of Engineering Works Bye-Laws 1987, as amended from time to time.

65.2 Special Risks

The text is deleted and substituted with the following:

The Special Risks are the risks defined under Sub-Clause 20.4 sub paragraphs (a) (i) to (a) (v).

67.3 Arbitration

In the sixth to eight lines, the words "shall be finally settled appointed under such Rules" are deleted and substituted with the following:

shall be finally settled under the provisions of the Arbitration Act, 1940 as amended or any statutory modification or re-enactment thereof for the time being in force.

The following paragraphs is added:

The number of Arbitrators shall be three including the Umpire.

The place of arbitration shall be Gilgit Pakistan.

68.1 Notice to Contractor

In the 3rd line, add the word "courier" after the word "cable".

The following paragraph is added:

For the purposes of this Sub-Clause, the Contractor shall, immediately after receipt of Letter of Acceptance, intimate in writing to the Employer and the



Engineer by registered post, the address of his principal place of business or any change in such address during the period of the Contract..

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68.2 Notice to Employer and Engineer

For the purposes of this Sub-Clause, the respective address are:

- a) The Employer: **Director Engineering, Gilgit Development Authority, Yadgar Chowk, Khomer, Gilgit**
- b) The Engineer:

70.1 Increase or Decrease of Cost

Sub-Clause 70.1 is deleted in its entirety.

The following Sub-Clauses 73.1, 73.2, 74.1, 75.1, 76.1, 77.1 and 78.1 are added:

73.1 Payment of Income Tax

The Contractor, Subcontractors and their employees shall be responsible for payment of all their income tax, super tax and other taxes on income arising out of the Contract and the rates and prices stated in the Contract shall be deemed to cover all such taxes.

74.1 Integrity Pact

If the Contractor or any of his Subcontractors, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Contractor as Appendix-L to his Bid, then the Employer shall be entitled to:

- (a) recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Contractor or any of his Subcontractors, agents or servants;
- (b) terminate the Contract; and
- (c) recover from the Contractor any loss or damage to the Employer as a result of such termination or of any other corrupt business practices of the Contractor or any of his Subcontractors, agents or servants.

The termination under Sub-Para (b) of this Sub-Clause shall proceed in the

manner prescribed under Sub-Clauses 63.1 to 63.4 and the payment under Sub-
-Clause 63.3 shall be made after having deducted the amounts due to the
Employer under Sub-Para (a) and (c) of this Sub-Clause.

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75.1 Termination of Contract for Employer's Convenience

The Employer shall be entitled to terminate the Contract at any time for the Employer's convenience after giving 56 days prior notice to the Contractor, with a copy to the Engineer. In the event of such termination, the Contractor :

- (a) shall proceed as provided in Sub-Clause 65.7 hereof; and
- (b) shall be paid by the Employer as provided in Sub-Clause 65.8 hereof.

76.1 Liability of Contractor

The Contractor or his Subcontractors or assigns shall follow strictly, all relevant labour laws including the Workmen's Compensation Act and the Employer shall be fully indemnified for all claims, damages etc. arising out of any dispute between the Contractor, his Subcontractors or assigns and the labour employed by them.

77.1 Joint and Several Liabilities

If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfilment of the terms of the Contract and shall designate one of such persons to act as leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.

78.1 Details to be Confidential

The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the Employer or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract, the same shall be referred to the decision of the Engineer whose award shall be final



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SPECIAL PROVISIONS



SPECIAL PROVISIONS (CIVIL WORKS)

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SPECIFICATIONS - SPECIAL PROVISIONS (CIVIL WORKS)

SP-1 GENERAL

The solar street lights installation project in Gilgit city is a transformative initiative undertaken by the Gilgit Development Authority (GDA) to revolutionize the city's urban infrastructure. The project involves the installation of solar-powered street lights throughout the city to replace conventional grid-based lighting systems. These solar street lights are equipped with energy-efficient LED technology and are powered by solar panels, making them both environmentally friendly and cost-effective.

Existing Facilities in the Area:

While Gilgit city has made significant strides in improving its urban infrastructure through the installation of 418 solar street lights in key locations, there are still areas within the city that remain insufficiently illuminated. The existing facilities in the area include:

Partial Coverage: The 418 solar street lights installed by GDA have indeed brought positive changes to the main locations of the city. However, several areas within Gilgit city still lack adequate street lighting

SP-2 DESCRIPTION OF THE WORKS

2.1 The work included in this Contract are as follows but not limited to these items only:

- *Procurement and installation of Solar Street lights.*
- Integrated Solar Lamps
- Lithium Battery
- Octagonal Street Light Pole
- Solar Panel
- Pole Foundation

SP-3 SITE OF WORKS

Different Locations of Gilgit City

SP-4 SETTING OUT

Setting out data and control points for the construction of the buildings will be provided by the Engineer following the Notice to Commence but in any case prior to start of work of each building.

SP-5 CLIMATOLOGICAL DATA

Not used.

IB-1

SP-6 UTILITIES

The Contractor shall directly enquire from the utility companies about availability of connections of electric power supply and telephone lines for his use at the Site. In case of non-availability of electric power supply from national grid to meet his requirements the Contractor shall provide at his own cost electric power generators as necessary for supply of power for the various parts of the Works including his camps, offices, stores, workshops and other installations as well as for the Engineer's Site office provided under Sub-Clause SP 20.1. The Contractor shall bear all costs for constructing, operating and maintaining the generation system, including the standby generation system, and distribution system including providing diesel, oil or other consumables and all services and necessary attendance to ensure uninterrupted power supply at all times.

The Contractor shall make his own investigations and arrangements for supply of water of acceptable quality for construction requirements and safe drinking water for his staff and workmen and for the staff of the Engineer.

No separate payment will be made to the Contractor for works performed under this Clause and the costs thereof shall be deemed to be included in the rates and prices of the various items in the Bill of Quantities.



SP-7 TOPOGRAPHY AND GEOLOGY OF THE SITE

The details of Topography is with the Employer / Engineer.

IB-1

SP-8 EXTENT OF WORK

The Contractor shall remove all debris and unsuitable construction to the Engineer's satisfaction with no additional cost.

The Contractor shall construct the Works in accordance with the Drawings and Specifications and as directed by the Engineer. The Contractor shall procure, furnish, provide and arrange all the necessary construction materials, equipment, transportation, fuel, electric power, water and services; be responsible for the construction and maintenance of the construction camps, offices, workshops and warehouses that he may require, and perform all other work necessary for completion of the Works described herein, in complete conformity with the Contract.

SP-9 DRAWINGS

9.1 Bidding Drawings

The Drawings provided as separate volume of Bid Documents and hereinafter referred to as Bid Drawings show the scope of the work to be performed by the Contractor. The Bid Drawings shall not be used as a basis for fabrication or construction, but may be used as the basis for planning, scheduling and placing preliminary orders for materials, subject to corrections based on future issue of Construction Drawings. Any other Drawings if issued through Addenda, before opening of Tenders, shall become part of the Bid Drawings.

9.2 Construction Drawings

After award of Contract, Bidding Drawings will be replaced by Drawings issued by the Engineer for Construction, with such modifications as may be necessary. The Drawings Issued for Construction will include Bid Drawings re-issued, Bidding Drawings modified and additional Drawings as required to develop in greater detail the construction required and shall be referred to hereinafter as "Construction Drawings". The Construction Drawings that show changes from the Tender Drawings and Specifications, will be reviewed by the Engineer for determination of adjustments, if any, of the Contract Price in accordance with the provisions of Clause 51.1, Variations, of the Conditions of Contract. The work shall be executed in conformity with the Construction Drawings.

The Engineer and Contractor shall jointly prepare a schedule for issuance of Drawings Issued for Construction of the various parts of the



Works based on a list of drawings provided by the Engineer.

9.3 Checking of Drawings

IB-1

The Contractor shall carefully check all Construction Drawings as soon as practicable after receipt thereof, and shall promptly advise the Engineer of any errors if discovered.

SP-10 RIGHT TO CHANGE

The Engineer may find it desirable to change location, alignment, dimensions or design of one or more of the features of the Works to conform to the newly disclosed conditions. Toward this end, the Engineer reserves the right to make such reasonable changes, and the Contractor's operations shall be conducted so as to accommodate any such changes in the Works.

SP-11 DRAWINGS/DATA TO BE FURNISHED BY EMPLOYER

/ENGINEER 11.1 Procedure for Submittal of Contractor's Drawings

All drawings showing construction details shall be provided by the Employer/Engineer.

11.2 Other Drawings

Other drawings additional to those referred to herein- above required by the Specifications showing proposed methods of constructing Temporary Works and all bar bending schedules shall be submitted by the Contractor to the Engineer for approval.

11.3 Ownership of Drawings etc.

All the drawings, details, and any other information or documents furnished by the Engineer shall become the property of the Employer.

SP-12 COOPERATION WITH OTHER CONTRACTORS

The Contractor shall cooperate and coordinate his work with that of the other contractors working at the Site, to whatever extent may be necessary to complete the Works in accordance with the approved programme and the Engineer's instructions.

SP-13 QUALITY OF MATERIALS

All materials, fixtures, fittings, and supplies furnished under the Contract shall be new and unused, of standard first grade quality and of the best workmanship and design. No inferior or low grade materials and supplies will be either approved or accepted, and all work of assembly and



construction shall be done in a first class and workmanlike manner. In asking for prices of materials intended for delivery to the Site and incorporation in the Works under any portion of these Specifications, the Contractor shall provide the manufacturer or supplier with complete information as may be necessary to secure compliance with these requirements and, in every case, he shall quote this Clause in full to each such manufacturer or supplier. **IB-1**

Prior to procurement, the Contractor shall furnish to the Engineer, for his approval, the names of the manufacturers of all equipment and materials which he contemplates incorporating in the Works. With this information, the Contractor shall also furnish such pertinent information as to capacities, efficiencies and sizes, and such other information as may be required by the Engineer. Samples of materials shall be submitted to the Engineer for approval unless waived of by the Engineer. Equipment, materials, supplies and articles installed or used without the Engineer's approval shall be at the risk of subsequent rejection.

The Contractor shall use non-reactive aggregates from suitable quarries for concrete work. The Contractor shall use deformed steel reinforcement bars rolled from Pakistan Steel Mills billet or equivalent from re-rolling mills proposed by the Contractor and approved by the Engineer.

SP-14 INSPECTIONS AND TESTS

14.1 Inspection

All equipment and materials furnished under the Contract and all work performed in connection therewith under the Contract shall be subject to inspection and testing by the Engineer or his authorized agent at all times and in all stages of completion. Inspection at the manufacturer's plant may be made to determine that the equipment and materials meet the requirements of these Specifications. The Contractor shall notify the Engineer not less than 21 days in advance of the date and place that the equipment or materials will be available for inspection and testing. No equipment or materials shall be transported until inspection at the manufacturer's plant has been made. Acceptance of equipment and materials or the waiving of inspection and testing thereof shall in no way relieve the Contractor of the responsibility for furnishing equipment and materials meeting the requirements of the Contract Documents. Confirmatory tests shall also be carried out at the Site or at an approved laboratory, as instructed by the Engineer. These tests shall be witnessed by the Engineer and performed at no additional cost to the Employer.



14.2 Testing

The Engineer will make such tests on concrete, aggregates, fill materials, reinforcing steel and other materials as he may from time to time select, and the Contractor shall provide at his own cost such samples or assistance in sampling materials at the Site as the Engineer may reasonably require. Testing by the Engineer shall in no way relieve the Contractor of his responsibility to test materials to ensure that they meet all the specified requirements and to control their quality. The Engineer may accept that items manufactured away from the Site meeting the specified requirements without further testing subject to the Contractor furnishing satisfactory proof of compliance with these Specifications in one or more of the ways described below. **IB-1**

The Contractor shall provide free of charge such labour, materials, electricity, fuel, water, stores, apparatus and feedstock as may be reasonably required by the Employer to carry out the Tests. Further contractor shall make all kind of arrangements for third party inspection/ Witnessing of Factory Acceptance Tests (as stated and in conjunction with Sub-clause 37.2, Particular Conditions of Contract), of major components of GRP pipe in manufacturing factory whether located in Pakistan/abroad for four officials (02 from Employer and 02 from Engineer-In-charge side). All expanses regarding air tickets, visa in case of abroad, boarding/lodging, food, transport, hoteling etc. will be borne by the Contractor and no extra payment will be made to contractor. Contractor shall quote his prices keeping in view of such expanses.

Manufacturer's Certificate of Compliance

In the case of standard labelled stock products of standard manufacture which have a record of satisfactory performance in similar work over a period of not less than five years, the Engineer may accept a notarised statement from the approved manufacturer certifying that the product conforms to the applicable specifications.

Mill Certificates

Regarding materials for which such practice is usual, the Engineer may accept the approved manufacturer's certified mill and laboratory certificates.

Testing Laboratory Certificates

The Engineer may accept a certificate from a renowned commercial testing laboratory, satisfactory to him, certifying that the product has been tested within a period acceptable to the Engineer and that it conforms to the requirements of these Specifications.

Service Record

If a demonstrable satisfactory service record for a period not less than ten (10) **IB-1** years is available for a material, certain specified tests may be waived off by the Engineer.

14.3 Cost

Further to the provisions of Sub-Clause 36.3, Conditions of Contract, the cost of any laboratory, field and shop tests required from any agency of compliance with under Specifications shall be borne by the Contractor.

SP-15 CONSTRUCTION PROGRAMME

15.1 General

The Contractor shall submit his programme for execution of the Works in accordance with Clause 14.1 [*Programme to be Submitted*], under the Conditions of Contract, to the Engineer for approval. The programme may contain adjustments if any, to the CPM (Critical Path Method) based Bar Chart submitted with the Bid. The completion date, milestones, and key targets indicated in Appendix- E to Bid, or dates earlier than the said milestone and key target dates, shall be shown on the construction programme to be submitted by the Contractor. Other dates including rates of progress for various parts of the Works in the construction programme may be changed by the Contractor and submitted for approval. The operations under each section of the programme submitted by the Contractor shall be broken down in greater detail than those shown on the Schedule submitted with the Bid.

The programme shall also show the timing of provision of any facilities the Contractor is required to supply for use by the Employer and the Engineer, in such manner that these shall be available as stipulated in the Contract and instructed by the Engineer.

15.2 Submittals

- (a) The initial submittal of network analysis shall include a description of the major items of construction equipment planned to be used. The description of the equipment shall include the type, number of units, their capacity, etc. The forecast shall include the estimated dates on which each major item of construction equipment will be on the job. The Bar Chart and the Network Analysis shall be submitted within 14 days after receipt of the Letter of Acceptance.



The submittal shall consist of:

IB-1

- (i) 4 copies of the Bar Chart.
- (ii) A narrative summary of the construction plan.
- (iii) A backup of the schedule files on re-writable CD disks or pen drive.

The Engineer will review the construction schedule and the approved initial submittal will be the Project Baseline Schedule by which the performance of the Contractor will be measured as per Sub-Clause 15.6 below:

- (b) Monthly submittals shall show completed progress of each activity during the past month, with forecast for the coming month. Hammock networks shall be incorporated on the Base Line Schedule of activities. Each monthly submittal shall contain:
 - (i) 4 copies of the Bar Chart.
 - (ii) 4 copies of a time scaled logic diagram for the next three months.
 - (iii) A narrative summary of the schedule related issues and status. The narrative shall include discussion of pending schedule changes submitted to the Engineer in the past month.
 - (iv) A backup of the schedule files on rewritable CDs or pen drive.

15.3 Progress Schedule

Both the bar charts and network analysis schedules shall be continuously monitored and kept current and updated by the Contractor throughout the work, and at least on every milestone date and submitted for approval. The Contractor's schedules shall be available for examination during normal business hours. All revisions shall be accompanied by a detailed explanation of the reasons for the changes and describing any new or modified construction procedure proposed and, if applicable, any steps being taken to improve progress to achieve completion within the Time for Completion.

SP-16 LAY OUT OF WORKS

16.1 Reference Points, Lines and Levels

The Engineer will lay out a reference line or lines in the field with accompanying points and/or bench- marks to enable the Contractor to establish there from survey control for construction.

16.2 Verification



The Engineer may make checks as the work progresses to verify lines, levels and grades established by the Contractor and to determine the conformance of the work as it progresses with the requirements of the Specifications and the Drawings. Shall not relieve the Contractor of his responsibility to perform all work in accordance with the Drawings and Specifications and the lines, levels and grades given therein. **IB-1**

16.3 Primary Control Points

Based upon the Engineer's basic control, the Contractor shall provide his own primary control points, as needed for the Works, and shall preserve and maintain them until otherwise authorized.

The Contractor shall be responsible for maintaining all survey markers/monuments, and property corners. If any markers/monuments are disturbed or destroyed by the Contractor, the Contractor shall arrange, at his own cost, to retrace and replace them to the entire satisfaction of the Engineer. If a monument cannot be replaced in its original position, the Contractor shall install a witness corner. The Contractor shall complete and file monument reference cards on all monuments as per instructions of the Engineer.

16.4 Construction Surveyors

The Contractor shall provide experienced construction surveyor/s with adequate experience in the construction surveys similar in nature as required by this Contract.

16.5 Basic Control Monument

Based upon the Engineer's established basic control monuments, the Contractor shall establish all lines and grades necessary to control the Works, and shall be responsible for all measurements that may be required for execution of the Works to the tolerance prescribed in Sub-Clause 16.7 below.

16.6 Surveys and Computations

The Contractor shall perform such surveys and computations as are necessary to determine quantities of work performed or placed during each progress payment period, and shall also perform all surveys required by the Engineer to determine final quantities of work in place. The Engineer will determine final quantities based on original ground levels determined by the Contractor and agreed by the Engineer.

The Contractor shall notify the Engineer at least 24 hours before performing a quantity survey and, unless specifically waived, quantity surveys shall be performed in the presence of and agreed by an authorized representative of the Engineer.

16.7 Tolerances

Degree of accuracy for the survey works shall satisfy the following specified **IB-1** tolerances:

- (a) Alignment of tangents and curves shall be within 0.1 foot for 1,000 feet i.e., an accuracy of 1:10,000.
- (b) Structure points shall be set within 0.01 foot accuracy from point to point, except where tighter tolerances are required.
- (c) Cross-section points shall be located within 0.10 foot, horizontally and 0.01 foot vertically.
- (d) Permissible closing error for a levelling line meant for establishing Temporary Bench Mark (TBMs) shall not exceed $0.045 \times \sqrt{M}$ foot, where M is in miles. The permissible closing error shall be duly adjusted.

16.8 Material and Equipment

The Contractor shall provide all materials, equipment and labour required for work.

SP-17 STANDARDS AND SPECIFICATIONS

Except as otherwise provided by these Specifications or the Drawings all materials, equipment and fabrication and testing thereof shall conform to the latest applicable Standards and Specifications contained in the following list or to equivalent applicable Standards and Specifications. Copies of these Standards and Specifications may be purchased from the indicated agency, which publishes them:

- | | | |
|---|--|------|
| - | British Standard | BS |
| - | American Concrete Institute | ACI |
| - | American Society for Testing and Materials | ASTM |

Where relevant Standards and Codes of Practice now quote metric units only, these are to be interpreted as required to the nearest equivalent imperial (foot/pound) unit for the purposes of this Contract.

All materials and workmanship not fully specified herein or covered by an approved Standard shall be of such a kind as is used in first class work and suitable to the climate in the Project Area.

If the Contractor, at any time and for any reason, wishes to deviate from the above standards or desires to use material or equipment not covered by the above standards, he shall state the exact nature of the changes, the reason for making the change and shall submit complete specifications of the materials and equipment to the Engineer for



approval.

IB-1

SP-18 ACCESS TO SITE

18.1 Right of Way for Access and Haul Routes

The Contractor shall be responsible for providing and maintaining access routes for the Works. The right of way for access to the Works from existing roads will be provided by the Employer. The Contractor shall make his own investigations of the condition of available public or private roads and of clearances, restrictions, bridge load limits and other limitations that affect or may affect transportation and ingress and egress at the job sites. The repair and reinstatement of roadways, drain and canal banks if damaged during operation shall be the responsibility of the Contractor without any additional cost to the Employer. The Employer controlled right of way shall be the Right of Way (ROW) available to the Contractor for carrying out the Works.

18.2 Restoration of Site

On completion of the Works, the Site shall be restored by the Contractor to its original conditions as far as practicable and left in tidy condition.

SP-19 FACILITIES TO BE PROVIDED BY THE CONTRACTOR

AT SITE 19.1 Contractor's Camps

Pursuant to the provisions of Sub -Clauses 34.4 to 34.7 of the Particular Conditions of Contract Part II. The Contractor may arrange these facilities in the nearby area of the Project or may request the Employer to provide land for providing temporary arrangements.

19.2 Temporary Sanitary Facilities

- (a) The Contractor shall provide adequate temporary sanitary conveniences for the use of his employees and persons engaged on the work, including the Engineer and his employees. He shall ensure that his employees and labour make proper use of the latrines and do not foul the Site.
- (b) In addition to toilet facilities, suitable and adequate washing facilities shall be provided.
- (c) Sanitary facilities shall be located as directed or approved by the Engineer and shall be maintained in a clean and sanitary



condition during the entire course of the work.

- (d) The septic tank and/or temporary holding tank(s) shall be kept pumped out at such intervals that the tank(s) will not overflow and contaminate the ground, flowing streams or surface drainage. **IB-1**
- (e) On completion of the Works, sanitary facilities shall be properly disinfected and all evidence of same including temporary buried tanks and foundations removed from the Site.

19.3 Medical Facilities

The Contractor shall arrange provision of adequate medical facilities for his employees.

Adequately equipped dispensary/ies with qualified and experienced staff shall be provided by the Contractor at his camps. In addition suitably equipped first aid stations manned by trained staff shall be provided at strategic locations, to administer first aid treatment at all times free of charge to all persons on the Site, including personnel of the Engineer and the Employer. The nature, number and location of facilities furnished and the Contractor's staff for administering first-aid treatment shall meet the requirements of the Health Services of the Government of Pakistan.

19.4 Operation and Maintenance of the Camps and Facilities

For the purpose of operation and maintenance of the camps and facilities provided as above, the Contractor shall comply with all applicable provisions of the Pakistani Labour Laws and specifically to the following requirements:

- (a) Camp areas shall be kept dry and free from dense vegetation. Measures shall be taken to control dust within the camp area, by water or oil spraying or other approved means.
- (b) Any ponded water around a camp shall be sprayed weekly with oil or other approved anti-malaria liquid.
- (c) The Contractor shall provide garbage collection and disposal services for his construction camps and the Engineer's office. Disposal shall be by burial (landfill) and/or incineration. Disposal area shall be located a sufficient distance away and downwind from camp facilities and offices so as not to create objectionable odours or health hazards. Equipment, methods of collection and disposal and location of disposal areas shall be submitted to the Engineer for approval.
- (d) The interior walls and ceilings of buildings shall be lime washed or



painted. The whole of the open spaces around the buildings shall be swept each day and all rubbish removed. The living areas shall be suitable for the climatic conditions. Roof height shall not be less than 10.5 ft. and adequate number of ceiling fans shall be provided. **IB-1**

- (e) Adequate sanitary conveniences, including washing and bathing places shall be maintained at each of the camps. All sanitary fixtures, receptacles, toilet rooms, lavatories and wash rooms shall be cleaned and disinfected at least once every day.

19.5 Drainage

The ground around the buildings shall be graded to slope away from building perimeters so as to provide adequate drainage and shall be thoroughly compacted. Excavated material shall be disposed of by filling in low areas or as otherwise directed by the Engineer.

19.6 Water Supply

The Contractor shall arrange for the water supply for his staff residences, labour camps, site offices, work yards, workshops, and various camp facilities. Construction of pumps, storage tanks, overhead tank, distribution system, and their proper running and maintenance shall be his responsibility. Water shall be supplied to the camps 24 hours a day. Adequate supply of water, cooled in summer, shall be ensured in camps and sites of work. Water samples shall be tested periodically to ensure that it is fit for human consumption.

19.7 Electricity Supply

The Contractor shall provide electricity required for the Works including labour camps, staff residences, offices including the Engineer's Site office and various camp facilities. The Contractor shall also provide sufficient standby electricity supply arrangements for his needs.

19.8 Utility Lines

The Contractor Shall conduct his operations, make necessary arrangements, take suitable precautions and perform all required work incidental to the protection of and avoidance of interference with power, telephone, water and other utilities within the areas of his operations in connection with the Contract. No separate payment shall be made for such incidental work. In case the utility lines are required to be relocated the Contractor shall arrange their relocation with the concerned departments and organizations. The Contractor shall obtain cost estimates for relocation of utilities for the Engineer/Employer's approval before execution of the Work .The Contractor shall be



reimbursed the actual approved cost carried in by him.

19.9 Handing Over/Removal after Completion

IB-1

Upon completion of the Works, the Contractor shall remove all the Contractor's camps, labour and staff accommodation, site office, other installations and buildings constructed and all facilities provided by the Contractor under this Clause, and the Site cleared and reinstated to the satisfaction of the Engineer.

19.10 Measurement and Payment

Except as provided in SP-19.8 no separate payment will be made for the work included under the Clause SP-19; the cost thereof is deemed to be included in the rates and prices of other items entered in the Bill of Quantities.

SP-20 PROVISION OF FACILITIES FOR THE EMPLOYER

STAFF/EMPLOYER 20.1 Facilities for Employer's Staff:

- (a) **Site offices:**
Not applicable
- (b) **Furniture:**
Not applicable
- (d) **Transport:**
Contractor will provide POL (Total 600 Liters Petrol/Diesel) for daily routine inspection of Employer free of cost considering the said amount in all items listed in Bill of Quantities. No extra payment will be made to Contractor.
- (e) **Office Equipment & Stationery:**
Contractor will provide office equipment & stationary as desired by the Engineer's office for smooth functioning of official activities of the project.

20.2 Ownership of Site facilities

All facilities/utilities provided by the contractor as stated above in Clause-20.1 will be property of Engineer Incharge/Employer after successful handing taking over of project and expiration of defect liability period.

20.3 Measurement and Payment

Engineer Incharge/Employer will verify measurement of works upon submission of bills by the contractor and certify for running payment considering as an advance payment to contractor which will be adjusted at any time/stage prior to finalization of Final payment certificate to



contractor.

SP-21 PROGRESS PHOTOGRAPHS

IB-1

The Contractor shall furnish to the Engineer every month, for the site of Fifteen colour photographs on CD or pen drive and 4 colour prints of each photograph taken with a digital camera to clearly show the progress of construction. Each photograph shall be submitted in four prints of size 20 cm x 25 cm. Each print shall be marked on the back side with the caption of the activity, date and serial number. There shall be no writing, lettering or marking on the face of the photograph. Progress photographs shall be submitted from the month, following the month in which Notice to Commence is issued and continued till completion of the Works.

No separate payment will be made for the work specified herein and the cost thereof shall be deemed to be included in the other items of the Bill of Quantities.

SP-22 SITE FACILITIES TO BE PROVIDED BY THE

EMPLOYER 22.1 General

Without prejudice to the generality of the various clauses of the Contract and except for the facilities referred to hereinafter, particular attention is drawn to the obligations of the Contractor to make his own arrangements for providing, maintenance and furnishing of labour camps, staff residences, offices, workshops, stores watching and guarding thereof.

The Contractor shall submit his written demand of his requirements of land for his Site Facilities as herein specified, at least 28 days in advance.

22.2 Area for Storage and Workshop

The contractor will arrange an open area of adequate size for the facilities listed in Appendix-H to Tender and approved by the Engineer, for use as storage, and workshop areas. The Contractor shall provide and maintain at his own cost, all fencing, any necessary clearing, land levelling, foundations and above ground structures for sheds, covered areas, workshops, electricity, telephone, water distribution and waste water disposal etc, as he may need to meet his requirements.

SP-23 SAFETY MEASURES AT CONSTRUCTION SITE

- a) Pursuant to the provisions of Sub-Clause, for Safety Measures the Contractor shall observe high standards of safety for men and machines at all times and with regard to safety.
- b) The Contractor shall take all possible measures to protect his



personnel from harm. In case of any casualty or injury to any person due to the Contractor's operations, the Contractor shall ensure quality medical treatment and payment of due compensation.

- c) The Contractor shall not permit casual observers to come close to the sites where excavation and other hazardous operations are being performed.

SP-24 ENVIRONMENTAL PROTECTION

The Contractor shall exercise care to protect the natural landscape and shall conduct his construction operations so as to prevent any unnecessary destruction, scarring or defacing of the natural surroundings in the vicinity of the Works. Except where clearing is required for the Permanent Works, approved construction roads and the Temporary Works, and for excavation operations, all trees and native vegetation shall be preserved and shall be protected from damage which may be caused by the Contractor's construction operations and equipment. On completion of the Works, all work areas shall be smoothed and graded in a manner to conform to the natural appearance of the landscape. Where unnecessary destruction, scarring, damage or defacing may occur as a result of the Contractor's operations, it shall be repaired, replanted, or otherwise corrected as directed by the Engineer at no additional cost to the Employer.