

BIDDING DOCUMENT

FOR

THE PROCUREMENT OF

Supply, Installation and Commissioning of Solar Street Light

Sealed Quotation

Issued by:

Jayaprithivi Municipality, Bajhang

Chainpur Bajhang

Sealed Quotation Number

JPM-SQ-17-2081/082

Issued On

23-05-2025

Abbreviations

BD	Bidding Document
BF	Bidding Forms
BDS	Bid Data Sheet
BOQ	Bill of Quantities
COF	Contract Forms
DP	Development Partners
DoLI	Department of Local Infrastructure
ELI	Eligibility
EQC	Evaluation and Qualification Criteria
EXP	Experience
FIN	Financial
FY	Fiscal Year
GCC	General Conditions of Contract
GoN	Government of Nepal
ICC	International Chamber of Commerce
ITB	Instructions to Bidders
JV	Joint Venture
LIT	Litigation
MoU	Memorandum of Understanding
NCB	National Competitive Bidding
PAN	Permanent Account Number
PPA	Public Procurement Act
PPMO	Public Procurement Monitoring Office
PPR	Public Procurement Regulations
PL	Profit & Loss
SBD	Standard Bidding Document
SCC	Special Conditions of Contract
TS	Technical Specifications
VAT	Value Added Tax
WRQ	Works Requirement

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Invitation for Sealed Quotation

Name of the Office: Jayaprithivi Municipality, Bajhang

Address of the Office:

Chainpur Bajhang

Sealed Quotation No: JPM-SQ-17-2081/082

Date of second Publication : 23-05-2025

1. The Jayaprithivi Municipality, Bajhang invites sealed quotations from registered contractors for the construction of Supply, installation and commissioning of solar....
2. The Estimated amount for the works is (in NRs.): 1,024,008.04 (Exclusive of VAT and Contingencies)
3. Eligible Bidders may obtain further information and inspect the Sealed quotation Forms at the office of Jayaprithivi Municipality, Bajhang at Chainpur Bajhang or by reaching out to them at Telephone 092421064 or by dropping a mail at jpmunicipality2014@gmail.com [or may visit PPMO website www.bolpatra.gov.np.]
4. Sealed Quotation Forms may be purchased by eligible Bidders on the submission of a written application and upon payment of a non-refundable fee of 1000.0 NRs.

Or

Bidder who chooses to submit their bid electronically shall deposit the cost of bidding document in the account specified below:

Name of the Bank: Rastriya Banijya Bank Ltd.

Name of the Office: Jayaprithivi Municipality, Bajhang

Office Code no: 801077001

Office Account no: 4110100301010004

Rajaswa (revenue) Shirshak no: 14529

5. Sealed bids must be submitted to the above office by hand or through e-GP system i.e www.bopatra.gov.np/egp on or before 30-05-2025 12:00 hours. Bids received after this deadline will be rejected.
6. Sealed Quotations shall be opened in the presence of Bidders' representatives who choose to attend at 30-05-2025 14:00 hours at the office of Jayaprithivi Municipality, Bajhang. Bids must be valid for a period of 45 days after bid opening and must be accompanied by a bid security amounting to a minimum of NRs.26000 which shall be valid for 30 days beyond the validity period of the bid i.e 75 days.
7. If the last date of purchasing and /or submission falls on a government holiday, then the next working day shall be considered as the last date. In such case the validity period of the bid security shall remain the same as specified for the original last date of bid submission.

[Note : As mentioned in clause 49ka of PPR 2064 clause 49ka, add more relevant information as per required]

Section - II
Instruction to Bidders

Section I. Instruction to Bidders(ITB)

1. Scope of Works	1.1 The Employer stated in the BDS for the construction of works as detailed in attached specifications, drawings and the bill of quantities provided herein. The name of <i>Employer, name of project and contract identification number of Contracts</i> are provided in the BDS .
2. Eligible Bidder	2.1 This Invitation for Bids is open to all registered contractors with eligibility criteria specified in section III Eligibility Criteria. A bidder declared blacklisted and ineligible by the GoN, Public Procurement Monitoring Office (PPMO) and/or the DP in case of DP funded project, shall be ineligible to bid for a contract during the period of time determined by the GoN, PPMO and/or the DP. 2.2 In case of a natural person or firm/institution/company which is already declared blacklisted and ineligible by the GoN, any other new or existing firm/institution/company owned partially or fully by such Natural person or Owner or Board of director of blacklisted firm/institution/company; shall not be eligible bidder. 2.3 Firms shall be excluded if the corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV shall not be eligible to participate in procurement process till the concerned Court has not issued the decision of clearance against the Corruption Charges
3. One Bid per Bidder	3.1 Each Bidder shall submit only one quotation. A Bidder who submits more than one quotation shall cause all the quotations with the Bidder's participation to be disqualified.
4. Cost of Bidding	4.1 The Bidder shall bear all costs associated with the preparation and submission of his bid and the Employer shall in no case be liable for those costs.
5. Site Visit	5.1 The Bidder at his own cost, responsibility and risk may visit the site of the works and acquire all necessary information for preparing the bid and entering into a contract for construction of the works.
6. Content of Quotation Form	6.1 The Quotation Form comprise the documents listed below: Section I: Instructions to Bidders Section II: Bid Data Sheet Section III : Eligibility Criteria Section IV: Bidding Forms Section V: Works Requirements Section VI: Bill of Quantities Section VII: General Conditions of Contract (GCC) Section VIII: Special Conditions of Contract (SCC) Section IX: Contract Forms

7. Clarification	7.1 A prospective Bidder may obtain clarification on the Quotation Form from the Employer on or before 5 days prior to the deadline for submission of quotation.
8. Language of Bid	8.1. All documents relating to the bid shall be in English /Nepali.
9. Documents Comprising Bid	The bid by the Bidder shall comprise the following: • Letter of Bid • Eligibility Information/Document • Bid Security and • Priced Bill of Quantities
10. Bid Prices	10.1 The contract shall be for the whole works described in scope of works based on the priced Bill of Quantities submitted by the Bidder. The Bidder shall fill in rates and prices for all items of the works in Nepali Rupees. Items for which no rate or price is entered shall be deemed covered by the other rates and prices in the Bill of Quantities and shall not be paid separately by the Employer. All duties, taxes and other levies payable by the contractor under the contract shall be included in the rates, prices and total Bid Price submitted by the Bidder.
11. Bid Validity	11.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.
12. Bid Security	12.1 The Bidder shall furnish as part of its bid, in original form, a bid security as specified in the BDS. In case of e-submission of bid, the Bidder shall upload scanned copy of Bid security letter at the time of electronic submission of the bid. The Bidder accepts that the scanned copy of the Bid security shall, for all purposes, be equal to the original. The details of original Bid Security and the scanned copy submitted with e-bid should be the same otherwise the bid shall be non-responsive. 12.2 The bid security shall be, at the Bidder's option, in any of the following forms: (a) an unconditional bank guarantee from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law or; (b) a cash deposit voucher in the Employer's Account as specified in BDS. In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section III (Bidding Forms) or in another Form acceptable to the employer. The form must include the complete name of the Bidder. The bid security shall be valid for minimum thirty (30) days beyond the original validity period of the bid 12.3 Any bid not accompanied by an enforceable and substantially compliant bid security shall be rejected by the Employer as nonresponsive. In case of e-Submission, if the scanned copy of an acceptable Bid Security letter is not uploaded with the electronic Bid then Bid shall be rejected. 12.4 The bid security shall be forfeited if: (a) a Bidder requests for withdrawal during the period of bid validity specified by the Bidder on the Letter of Bid, after bid submission deadline. (b) a Bidder changes the prices or substance of the bid while providing information; (c) a Bidder involves in fraud and corruption pursuant to clause 27; (d) the successful Bidder fails to:

	(i) furnish a performance security in accordance with clause 25 and 26; (ii) sign the Contract in accordance within the period stipulated in Letter of Acceptance; or (iii) accept the correction of arithmetical errors pursuant to clause 21.1
13. Format and Signing of Bids	13.1 The bid shall be typed or written in indelible ink and shall be signed by an authorized person. Any entries or amendments including alternations, additions or corrections made shall be initialed by the same authorized person.
14. Sealing and Marking of Bids	14.1 Bidders may submit their bids by hand copy or by electronically. When so specified in the BDS, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows: (a) Bidders submitting bids by hand copy: The Bidder shall submit his bid in sealed envelopes. The envelope shall be addressed to the Employer specified in the Invitation for Quotation and shall bear the name and identification number of the quotation. (b) Bidders submitting Bids electronically shall follow the electronic bid submission procedure specified in the BDS
15. Deadline for Submission of Bids	15.1 Bids shall be delivered to the Employer at the address no later than the time and date specified in BDS .
16. Late Bids	16.1 Any bid received by the Employer after the deadline shall not be accepted and shall be returned unopened to the Bidder upon request.
17.Modification And Withdrawal of Bids	17.1 Bids once submitted shall not be withdrawn or modified.
18. Bid Opening	18.1 The Employer shall open the bids in the presence of the Bidders' representatives who choose to attend at the time and in the place as specified in the BDS . The Employer shall prepare and provide minutes of the bid opening including the information disclosed to those present.
19. Process to be Confidential	19.1 Information relating to the examination, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any efforts by the Bidder to influence the Employer in the bid evaluation, bid comparison or contract award decisions may result in rejection of Bidder's bid.
20.Examination of Bids	20.1. Prior to the detailed evaluation of Bids, the Employer shall determine whether each bid (a) meets the eligibility criteria defined in Clause 2; (b) has been properly signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the Bidding documents.
21. Evaluation and Comparison of Bids	21.1 In evaluating the Bids, the Employer shall determine for each bid the evaluated Bid Price by adjusting any corrections for errors. Bids shall be checked by the Employer for any arithmetic errors. Errors shall be corrected by the Employer as follows:

	(a) only for unit price Contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected; (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and (c) If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Bid will be corrected. (d) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) ,(b) and (c) above. 21.2 In case of e-submission of bid, upon notification from the employer, the bidder shall also submit the original of documents comprising the bid as per ITB 9 for verification of submitted documents for acceptance of the e-submitted bid. If a Bidder does not provide original of document of its bid by the date and time set in the Employer's request for clarification, its bid may be rejected. 21.3 If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security shall be forfeited. 21.4 If the corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such bidder's bid shall be excluded during the evaluation.
22. Award of Contract	22.1 The Employer shall decide the award of the contract to the Bidder whose bid is within the approved estimate and who has offered the lowest evaluated Bid Price within bid validity period provided that such Bidder has been determined to be eligible in accordance with the provisions of Clauses 2. 22.2 if the bid for an Unit Rate Contract, which results in the lowest Evaluated Bid Price is seriously unbalanced or front loaded or extremely low in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analysis 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 analysis, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder as mentioned in BDS to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract or may consider the bid as non-responsive.
23. Employer's Right to Accept any Bid and to Reject any or all Bids	23.1 The Employer reserves the right to accept or reject any bid or to cancel the bidding process and reject all bids, at any time prior to the award of the contract, without assigning any reasons whatsoever and without thereby incurring any liability to the affected Bidder or Bidders.
24. Notification of Award and	24.1 The Bidder whose bid is accepted and all other participating bidders shall be notified of the award by the Employer.

Signing of Agreement	24.2 The notification (hereafter called the “Letter of Acceptance”) to the successful Bidder shall state the sum that the Employer shall pay the Bidder in consideration of the execution, completion, and maintenance of the works as described by the contract. Within 7 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver the Performance Security pursuant Clause 25 and sign the Agreement. 24.3 Inability of the Bidder to make an Agreement within the above stated period shall result in cancellation of the Contract Award and forfeiture of the Bidder’s Bid Security, upon which the Contract shall then be awarded to the next successive successful Bidder.
25. Performance Security	25.1. Within seven (7) days of the receipt of Letter of Acceptance from the Employer, the successful Bidder shall furnish the performance security as under mentioned from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal in accordance with the conditions of Contract using Sample Form for the Performance Security included in Section IX (Contract Forms), or another form acceptable to the Employer. i) If bid price of the bidder selected for acceptance is up to 15 (fifteen) percent below the approved cost estimate, the performance security amount shall be 5 (five) percent of the bid price. ii) For the bid price of the bidder selected for acceptance is more than 15 (fifteen) percent below of the cost estimate, the performance security amount shall be determined as follows: Performance Security Amount = $[(0.85 \times \text{Cost Estimate} - \text{Bid Price}) \times 0.5] + 5\% \text{ of Bid Price.}$ The Bid Price and Cost Estimate shall be inclusive of Value Added Tax.
26. Additional Securities	26.1 The Bidder may be required to provide additional Performance Security if the Employer determines that the rate quoted by the Bidder in the Bill of Quantities, front loaded or unbalanced. In such case, the Employer shall instruct the Bidder to provide additional 8% security for signing of the Contract Agreement. Bidder’s failure to do provide additional security shall result in forfeiture of the Bid Security and award of the Contract to the next lowest evaluated Bidder.
27. Corrupt or Fraudulent Practices	27.1 The Employer shall reject a bid for award if it determines that the Bidder recommended for award of contract has engaged in corrupt or fraudulent practices in competing for the contract in question.
28. Conduct of Bidders	28.1 The Bidder shall be responsible to fulfill his obligations as per the requirement of the Contract Agreement, Bidding documents, GoN’s Procurement Act and Regulations. 28.2 The Bidder shall not carry out or cause to carry out the following acts with an intention to influence the implementation of the procurement process or the procurement agreement : - give or propose improper inducement directly or indirectly, - distortion or misrepresentation of facts - engaging or being involved in corrupt or fraudulent practice - Interference in participation of other prospective bidders. - coercion or threatening directly or indirectly to cause harm to the person or the property of any person to be involved in the procurement proceedings,

	f) collusive practice among bidders before or after submission of bids for distribution of works among bidders or fixing artificial/uncompetitive bid price with an intention to deprive the Employer the benefit of open competitive bid price.. g) contacting the Employer with an intention to influence the Employer with regards to the bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract
29.Blacklisting Bidder	29.1 Without prejudice to any other right of the Employer under this Contract, GoN, Public Procurement Monitoring Office may blacklist a bidder for his conduct up to three years on the following grounds and seriousness of the act committed by the bidder: a) if it is proved that the bidder committed acts pursuant to the Sub-Clause 28.2, b) if it is proved later that the bidder/contractor had committed substantial defect in implementation of the contract or had not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract , c) if convicted by a court of law in a criminal offence which disqualifies the bidder from participating in the contract. d) if it is proved that the contract agreement signed by the bidder was based on false or misrepresentation of bidder's qualification information, 29.2 A firm declared blacklisted and ineligible by the GON shall be ineligible to bid for a contract during the period of time determined by the PPMO.
30. Provision of PPA and PPR	If any provision of this document is inconsistent with Public Procurement Act (PPA), 2063 or Public Procurement Regulations (PPR), 2064, the provision of this documents shall be void to the extent of such inconsistency and the provision of PPA and PPR shall prevail.

Section - II

Bid Data Sheet

Bid Data Sheet	
ITB 1	The scope of work is : WORKS SEALED QUOTATION
ITB 1	The number of the Invitation for Bids is : JPM-SQ-17-2081/082
ITB 1	The Employer is : Jayaprithivi Municipality, Bajhang
ITB 11	The bid validity period shall be: 45 days.
ITB 12.1	The Bidder shall furnish a bid security, from 'A' class commercial bank with a minimum of 26000, which shall be valid for 30 days beyond the validity period of the bid.
ITB 12.2	Cash Deposit Account for Bid Security : Bank Name: Rastriya Banijya Bank Ltd. Bank Address: Chainpur, Bajhang Account Name: Jayaprithvi Municipality, bajhang Account Number: 4110100303000004
ITB 14.1	Bidders shall have the option of submitting their bids electronically. Electronic submission procedure shall be : i. The bidder is required to register in the e-GP system https://www.bolpatra.gov.np/egp following the procedure specified in e-GP guideline. ii. Interested bidders may either purchase the bidding document from the employer's office as specified in the Invitation for Bid (IFB) or bidders may download the IFB and bidding document from e-GP system. iii. The registered bidders need to maintain their profile data required during preparation of bids. iv. In order to submit their bids electronically the cost of the bidding document shall be deposited in the account specified in IFB. In addition, electronic scanned copy (.pdf format) of the bank deposit voucher/cash receipt should also be submitted along with the bid. v. The bidder can prepare their bids using data and documents maintained in bidder’s profile and forms/format provided in bidding document by Employer. The bidder may submit bids as a single entity. vi. Bidders should update their profile data and documents required during preparation and submission of their bids. The required forms and documents shall be part of technical bids. 1. Letter of Bid (Mandatory) 2. Bid Security/Bank Guarantee (Mandatory) 3. Company registration (Mandatory) 4. VAT registration (Mandatory) 5. Tax clearances certificate or evidence of tax return submission (Mandatory) 6. Power of Attorney of Bid signatory (Mandatory) 7. Completed BoQ (Mandatory) 8. Bank Voucher for cost of bid document (Mandatory) 9. Additional documents specified in Bidding Document (If required) Note : The documents specified as “Mandatory” should be included in e-submission. vii. After providing all the details and documents, bid response documents will be generated from the system. Bidders are advised to download and verify the response documents prior to bid submission. viii. For verifying the authentic user, the system will send one time password in the registered email address of the bidder. System will validate the OTP and allow bidder to submit their bid. ix. Once bid is submitted, bidders won’t able to modify/withdrawal their bid. x. The Bidder / Bid shall meet the following requirements and conditions for e-submission of bids : The e-submitted bids must be readable through PDF reader. The facility for submission of bid electronically through e-submission is to promote transparency, non-discrimination, equality of access, and open competition in the bidding process. The Bidders are fully responsible to use the e-submission facility properly in e-GP system as per specified procedures and in no case the Employer shall be held liable for Bidder's inability to use this facility. When a bidder submits electronic bid through the PPMO e-GP portal, it is assumed that the bidder has prepared the bid by studying and examining the complete set of the Bidding documents including specifications, drawings and conditions of contract.
ITB 15	The deadline for Sealed Quotation submission is:30-05-2025 12:00 Address:Chainpur Bajhang

ITB 18	The bid opening shall take place at : Address :Jayaprithvi Municipality Office, Dewal, Bajhang Date and Time:30-05-2025 14:00 a) e-GP system allows to download the bid response document only after bid opening date and time are met. Simultaneous login of two members of the opening committee is required for bid opening. b)The Employer shall conduct the opening of bid at the address on the same date and time as specified in bidding document in the presence of Bidders’ representatives who choose to attend
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Section - III

Eligibility Criteria

Eligibility Requirements

All Bidders shall submit following documents as pre- requisites for eligibility:

- 1 Firm/Company Registration Certificate
- 2 Business Registration Certificate (License)
- 3 PAN/VAT Registration Certificate
- 4 Tax Clearance Certificate/ Extension Letter/Tax return submission evidence for the F/Y2080/081
- 5 Power of Attorney
- 6 Letter of Bid
- 7 insert addition document if required

Notes to Bidders :

The information to be filled in by Bidders in the following pages shall be used for purposes of eligibility as provided for in Clause 2of the Instructions to Bidders. This information shall not be incorporated in the Contract. Attach additional pages as necessary.

Section - IV

Bidding Forms

Letter of Bid

The Bidder must accomplish the Letter of Bid in its letterhead clearly showing the Bidder's complete name and address.

Date:

Name of the contract:

Invitation for Bid No.:

To:

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents.
- (b) We offer to execute in conformity with the Bidding Documents the following Works:
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:.....
- (d) The discounts offered and the methodology for their application are:.....
- (e) Our bid shall be valid for a period of 45 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;
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;
- (g) 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;
- (h) We declare that, we have not been black listed and no conflict of interest in the proposed procurement proceedings and we have not been punished for an offense relating to the concerned profession or business.
- (i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and
- (j) If awarded the contract, the person named below shall act as Contractor's Representative:
- (k) We agree to permit the Employer/DP or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by the Employer.

Name:

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Bid Security

Bank Guarantee

Bank's Name, and Address of Issuing Branch or Office

(On Letter head of the Commercial bank or any Financial Institution eligible to issue Bank Guarantee as per prevailing Law)

Beneficiary: name and address of Employer.....

Date:.....

Bid Security No.:.....

We have been informed that ***[insert name of the Bidder]*** (hereinafter called "the Bidder") intends to submit its bid (hereinafter called "the Bid") to you for the execution of name of Contract under Invitation for Quotations No. ("the IFQ").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we..... name of Bank.hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of.amount in figures (.amount in words) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (b) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB.
- (c) is involved in fraud and corruption in accordance with the ITB

This guarantee will remain in force up to and including the datenumber.....days after the deadline for submission of Bids as such deadline is stated in the instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

This Bank guarantee shall not be withdrawn or released merely upon return of the original guarantee by the Bidder unless notified by you for the release of the guarantee.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

. . .Bank's seal and authorized signature(s) . . .

Note:

The bid security of has been counter guaranteed by the Bankon
..... (Applicable for Bid Security of Foreign Banks).

Section - V
Works Requirements

Scope of Work

Specifications

Notes on the Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Employer without qualifying or conditioning their Bids. The specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is encouraged by the Funding Agency in case of funding assisted projects. Most specifications are normally written specially by the Employer or Project Manager to suit the Contract Works in hand. The available standard specification of works of Ministry of Physical Infrastructure and Transport, DoLIDAR and Other line Ministries can be adopted for respective civil construction works.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, however it may not necessarily be adequate to be used in a particular Works Contract and may necessitate preparation of Particular (Special) Specifications to amend and or supplement the provision of the General Specifications to meet the requirement of the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards of Nepal or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable.

Employers should decide whether technical solutions to specified parts of the Works are to be permitted. Alternatives are appropriate in cases where obvious (and potentially less costly) alternatives are possible to the technical solutions indicated in the Procurement Documents for certain elements of the Works, taking into consideration the comparative specialized advantage of potential bidders. For example:

The Employer should provide a description of the selected parts of the Works with appropriate references to Drawings, Specifications, Bill of Quantities, and Design or Performance criteria, stating that the alternative solutions if applicable shall be at least structurally and functionally equivalent to the basic design parameters and specifications.

Such alternative solutions shall be accompanied by all information necessary for a complete evaluation by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, proposed construction methodology, and other relevant details.

Sample Clause: Equivalency of Standards and Codes Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Project Manager's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Project Manager at least 30 days prior to the date when the Contractor desires the Project Manager's consent. In the event the Project Manager determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These Notes for Preparing Specifications are intended only as information for the Employer or the person drafting the Procurement Documents. They should not be included in the final documents.

1. Background:

A standalone solar photovoltaic street lighting system is an outdoor lighting unit used for illuminating a street or an open area. Recent advances in LED lighting have brought very promising opportunities for application in street lighting. Combining LED's low power, high illumination characteristics with current photovoltaic (PV) technology, PV powered street light utilizing LED has become a norm in many places. In today's application, most of the common High Intensity Discharge (HID) lamps, often High Pressure Sodium (HPS) lamps are being replaced by more low powered Light Emitting Diode (LED) lamps.

A basic solar powered LED street light system components are:

1. Solar Panel or Photovoltaic Module
2. Lighting Fixture – LED lamp set
3. Rechargeable Deep Cycle Battery
4. Solar Charge Controller
5. Light Pole

The Solar Panel will provide electricity to charge the battery during day time. The battery's charging is controlled by a charge controller. The operation of the LED bulb is controlled by a control circuit either by using sensors such as Light Dependent Resistor (LDR) or voltage or current sensor. All these components will be fixed on a pole as shown in Figure 1 below. The solar panel is mounted at the top of the pole to minimize the possibility of any shading on the panels.

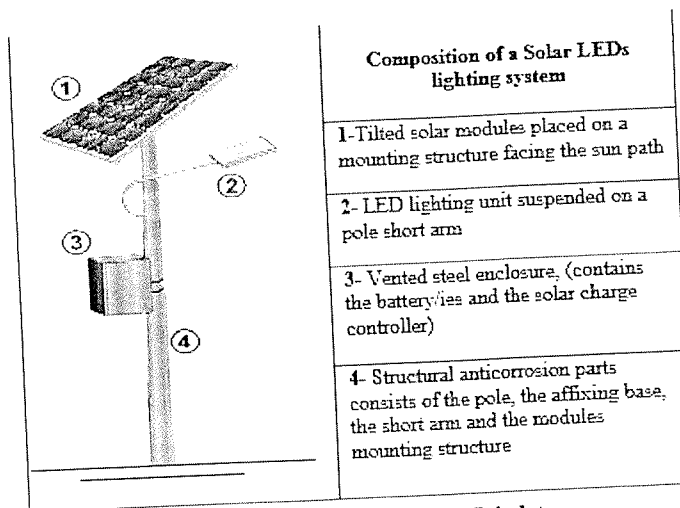


Figure 1: Solar Street Light

2. Description of basic components of solar street light system:

2.1 Solar panel

A Solar Panel is basically a module that converts light energy (photons) from the sun to generate electricity in direct current (DC) form. There are two types of solar panels, mainly crystalline and thin-film types.

There are two types of crystalline solar panels (see Figure a & b):

- Poly-crystalline Solar Panel
- Mono-crystalline Solar Panel

As for Thin-film types, there are (see Figure c):

- Amorphous Silicon (a-Si)
- Cadmium Telluride (Cd-Te)
- Copper Indium Gallium Selenide (CIGS)
- Dye-Sensitized Solar Cell (DSC)

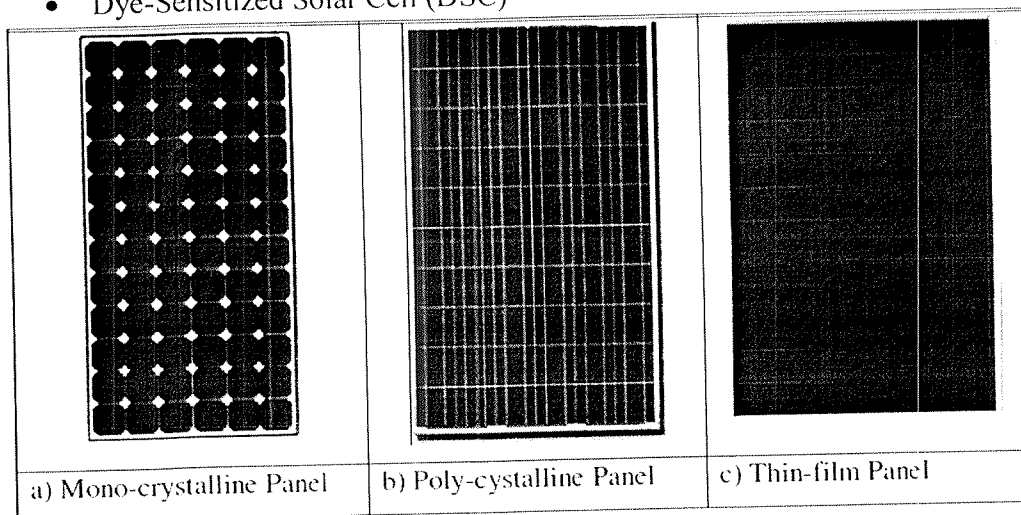


Figure 2: Types of Solar PV Module

2.2 Battery

Batteries are used to store the electricity generated by the solar panel. During the day, electricity generated by the solar panels is supplied to the battery and/or the load. When the load demand is higher than the energy received from the solar panels, these batteries will provide stable energy to the load. Solar power applications typically use deep-cycle batteries because they can persist repeated and deep discharges. There are a few types of rechargeable batteries, which are:

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(i) Lead-Acid (LA) Battery

These batteries are the most commonly used in solar powered systems due to its maturity in technology and low pricing. They can only be used with low Depth of Discharge (DOD) in order to extend its lifespan. Its DOD ranges from 60%-80%. There are two types of Lead-Acid batteries, i.e. flooded and Valve Regulated Lead Acid (VRLA) batteries which are maintenance free batteries.

(ii) Nickel-Cadmium (Ni-Cad) Battery

Nickel-Cadmium (Ni-Cad) batteries are expensive and disposing of Cadmium is hazardous. Even though they have several advantages over Lead-Acid batteries, such as longer life span, and tolerance for higher discharge, Ni-Cd batteries is not commonly used in solar powered systems due to its high cost and limited availability.

(iii) Lithium-Ion (LI) or Lithium-Polymer (LP) Battery

Lithium based batteries are considered the future of batteries used in solar powered systems. This is due to a number of factors such as high specific energy, high DOD, and higher number of charging cycles. However, due to its higher cost compared to LA type of batteries, they are still not very widely used.

2.3 LED lamp

A LED lamp is a light-emitting diode (LED) product that is assembled into a lamp (or light bulb) for use in lighting fixtures. LED lamps have a lifespan and electrical efficiency that is several times better than incandescent lamps, and significantly better than most fluorescent lamps, with LED able to emit more than 100 lumens per watt. LED are the perfect combinations with solar power as it operates under low voltage, low heat and low power requirement.

Like incandescent lamps and unlike most fluorescent lamps (e.g. tubes and CFL), LED lights come to full brightness without need for a warm-up time; the life of fluorescent lighting is also reduced by frequent switching on and off. Initial cost of LED is usually higher. LED chips need controlled direct current (DC) electrical power; an appropriate power supply is needed. LEDs are adversely affected by high temperature, so LED lamps typically include heat dissipation elements such as heat sinks and cooling fins.

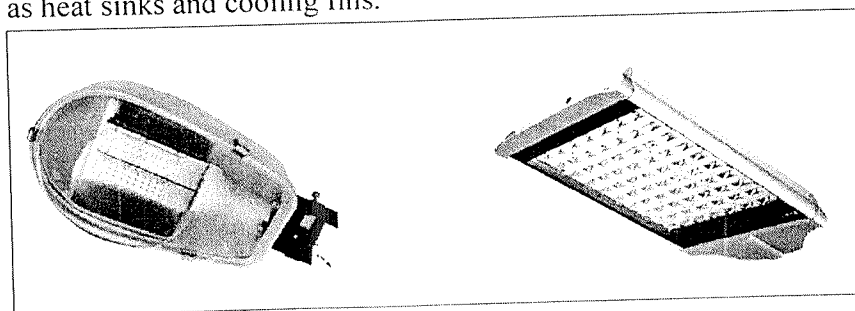


Figure 3: Examples of LED solar street lamps

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2.4 Charge controller

Charge controllers are used to control the charging of the batteries. Since the output from solar panels are variable and needs adjustments, charge controllers fetches the variable voltage/current from solar panels, condition it to suit the safety of the batteries. The main functions of charge controllers are to prevent over-charging of batteries from solar panels, over-discharging of batteries to the load and to control the functionalities of the load.

Charge controllers are basically DC-DC converters, where PWM or MPPT technique is used to regulate the switches of the controller. There are three general types of charge controller, mainly:

- Simple ON/OFF Controller
- Pulse Width Modulated (PWM) Controller
- Maximum Power Point Tracking (MPPT) Controller

Most charge controllers operate at three stages to complete the charging cycle of the batteries. These stages vary according to different times and battery voltages. PWM can be employed to control the charging at the stages:

- BULK stage
- ABSORPTION stage
- FLOAT stage

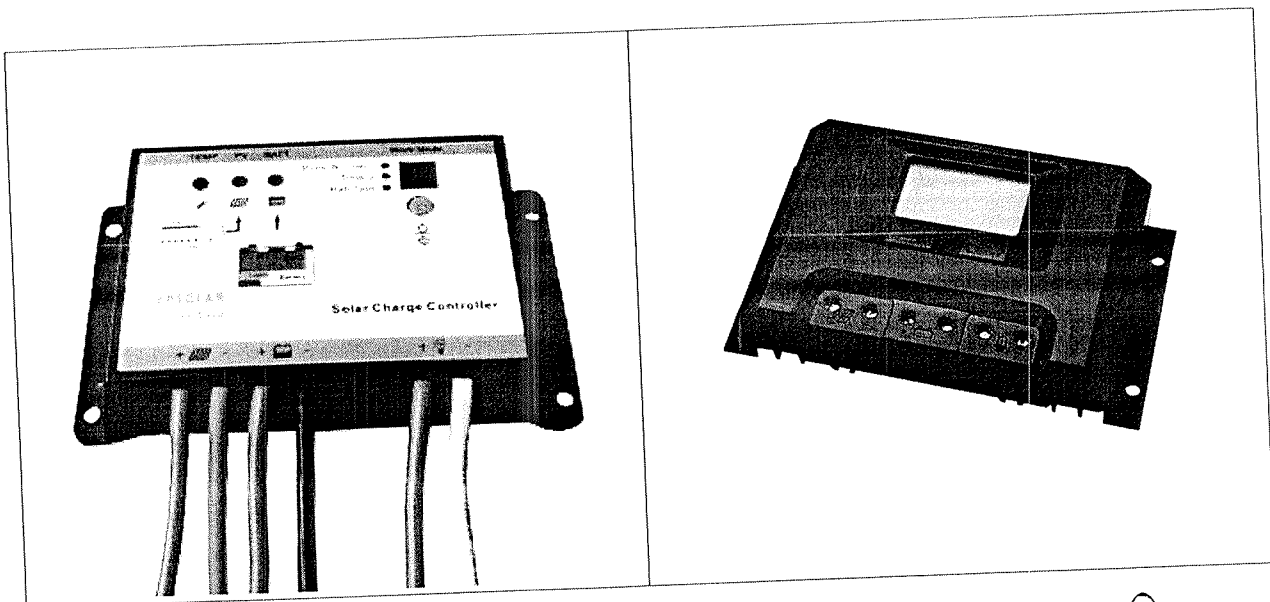


Figure 4: Examples of charge controller

2.5 Utilizing sensors to obtain energy-efficient solar powered street lights

For economical and technical viability, optimized solar powered street lights are obtained using sensors. Sensors such as Ultrasonic sensors, IR Sensors and LDR sensors are used to control the LED lamp functionalities in order to achieve a more energy efficient system. In this case the street light must have auto on and off and must have at least two state of dimming function to save energy, from dusk to dawn.

3. Installation of solar street light system:

The configuration of solar street light system must be designed to be robust and must be good enough to withstand the harsh environmental condition as the system are installed in road where it is continuously exposed to sun, rain, fog, pollution etc. The solar street lighting installation shall not damage aesthetic of the existing city or street plan; rather it shall add beauty to the existing roadway. The solar street lights can be installed in following two ways:

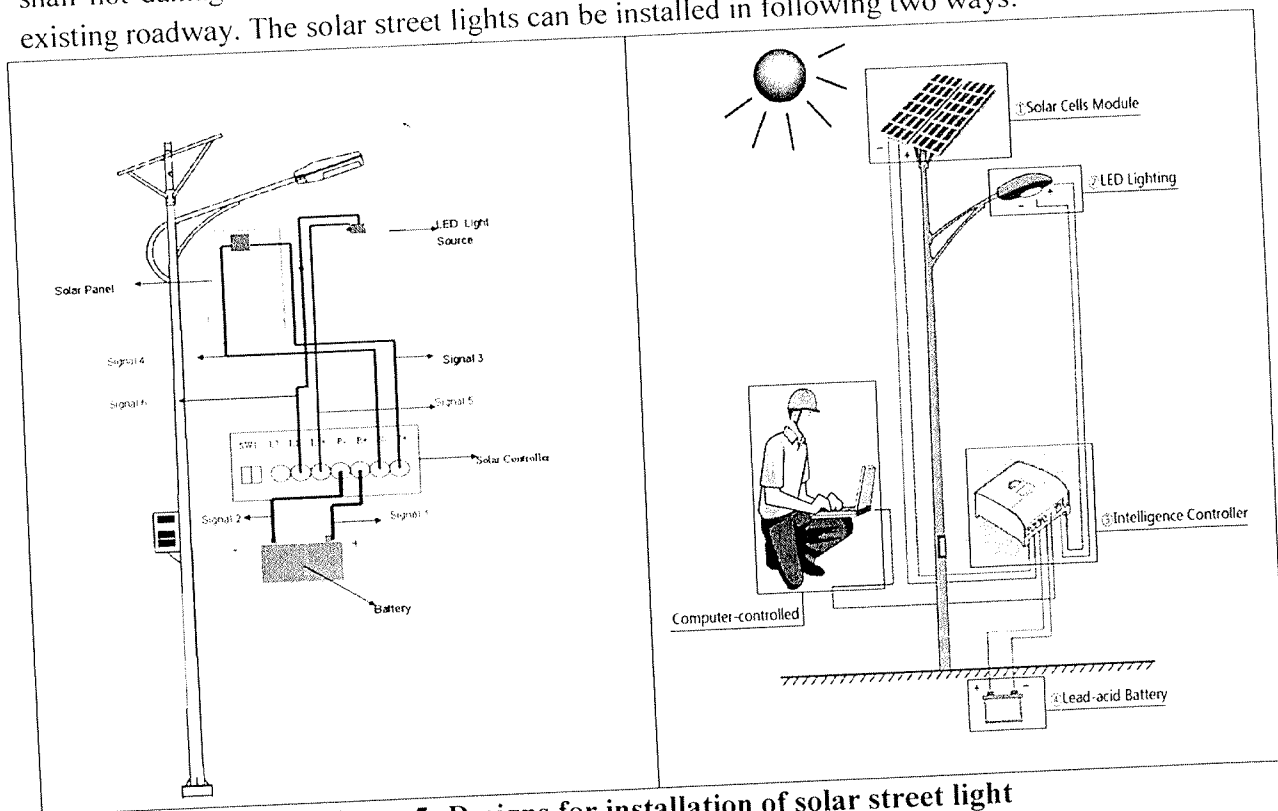


Figure 5: Designs for installation of solar street light

In above figure, first configuration depicts the situation where the battery is kept in the battery box on the pole whereas in second configuration the battery is installed in underground. Either of the configurations can be considered for installation of the system, and it has to be decided case wise case depending upon the requirement of the project site. Nevertheless the battery box mounted on the light pole is common practice in case of stand-alone solar street lighting systems.

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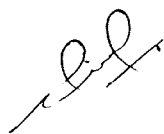
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2. Defining of packages:

The packages have been defined based on the power consumption of lamps. The package will be selected based on the nature and size of the road for which the solar street light system is being designed.

SSLS Type	Lamp Size (Watt)	Minimum Solar PV Module Size (Wp)	Minimum Battery Size for Lead Acid(AH)	Minimum Battery Size for Lithium Ion (AH)	Minimum Charge Controller Size (A)	Height of pole in meter	Recommended for road having Right of Way (ROW)
Type 1	10	50	40	30	5	7	Less than 4 M
Type 2	20	100	60	45	10	7	4-6 M
Type 3	30	150	80	60	12	7	>6-10 M
Type 4	40	200	100	75	15	8 or 9	>10 -14 M
Type 5	60	300	150	115	25	8 or 9	>14 -20 M
Type 6	80	400	200	150	30	10	>20 – 30 M
Type 7	100	500	250	180	40	10	>30 M

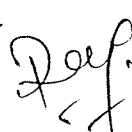
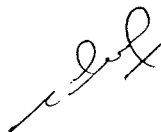
Table 1: Types of Solar Street Light System



3. Technical Specification:

Scope of works shall include:

- a. All necessary Spare parts/Tools have to be provided by the contractor.
- b. Suitable Carrying case (if possible) should be provided by the contractor.
- c. The complete Set of Goods shall be warranted by the contractor against any manufacturing/ design/ installation defects for a minimum period of **5 years** from the date of installation.
- d. The contractor will make all necessary arrangements for satisfactory operation, maintenance and performance of the Goods during 5 year's Warrantee/Guarantee period.
- e. Rectification of all the defects developed in the Goods during Warrantee/Guarantee period shall have to be done by the contractor promptly, at the most within 7 days from the date of receipt of compliant.
- f. Warrantee/Guarantee will include rectification /replacement of all the defective and consumable components/items. During Warrantee/Guarantee period, all the arrangements for keeping all the goods functional shall be the sole responsibility of the contractor.
- g. After completion of the proposed works, clearances of all temporary works/ materials shall be the sole responsibility of the contractor and this shall be removed immediate after the requirement of such temporary work is completed.
- h. All the non functional parts/ materials/ items replaced during the Warrantee/Guarantee period shall be the property of the contractor.
- i. The contractor will conduct on-site training of the purchaser's/user's personnel regarding the assembly, start-up, operation, maintenance and repairs of the Goods.
- j. Contractor should have enough experience and qualified technical staff to do design, installation and support. Name, experience certificates and CVs of the engineering staff who will supervise the installation and support should be included.
- k. The contractor must nominate in the offer a qualified project manager who should have at least a B.Sc. in electrical/Mechanical/Civil engineering with a minimum experience of 2 years in PV system projects.
- l. All works carried-out by the contractor should be maintained and ensure proper functioning of street light for five years starting from the date of final acceptance.
- m. The Contractor will be responsible for all engineering and design.
- n. The contractor will be responsible for cleaning of the solar PV module for at least five years from the date of installation and commissioning.



Technical Specifications:

The bidder must furnish documentary evidence in the form of literature (catalogue), certified dimensional drawings, and detailed description of goods with essential technical information. All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

The Bidder shall furnish a clause-by-clause commentary on specification, specifying compliance and deviations, if any. This must be furnished; otherwise, the Bid may be rejected.

1. BATTERY

SN	Description	Specification
1.1	Manufacturer Name	
1.2	Brand/Model	
1.3	Battery Type	Lead Acid Sealed- Gel Tubular VRLA solar deep cycle or Lithium ion with proper protection
1.4	Battery Voltage	For Lead Acid battery: 12V For Lithium Ion battery the bidder must propose the voltage compatible to system
1.5	Battery Efficiency	Minimum 85%
1.6	Quantity (mention capacity)	Individual battery must be of at least..... (Capacity must be selected as per the type of solar street light mentioned in table 1)
1.7	Pressure Regulation	The battery shall be provided with pressure regulation valve, which shall be self-re-sealable and flame retardant
1.8	Self Discharge	less than 3% per month
1.9	Operating Temperature	-5 °C to 55°C
1.10	Instruction	Charging instructions shall be provided along with the batteries
1.11	Warranty	5 years replacement guarantee.

Section - VII

Drawings

Note:

1. It is customary to bind the drawings in a separate volume, which is often larger than other volumes of the contract documents. The size will be dictated by the scale of the drawings, which must not be reduced to the extent that details are reduced illegible.
2. A simplified map showing the location of the Site in relation to the local geography, indicating major roads, posts, airports, and railroads, is helpful.
3. The construction drawings, even if not fully developed, must show sufficient details to enable bidders to understand the type and complexity of the work involved and the price the Bill of Quantities.

1.12	Construction	For Lead Acid Battery: Positive Plate: Tubular Plate with lead or alloy spine grid. Separator: Micro porous synthetic separator Electrolyte: Sulphuric acid. VRLA Terminals: Epoxy sealed terminals with threaded lead-plated copper alloy
1.13	Battery Life Cycle	At least 1500 at 80% DoD
1.14	Certification	RETS Certified

The following minimum information must be included on the label of the battery and label of battery must be fixed firmly or screen printed on the battery casing:

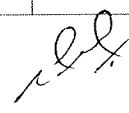
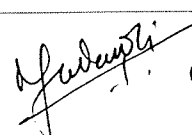
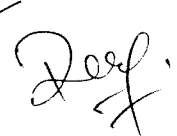
- ☐ Brand and name of Manufacturer
- ☐ Model and type
- ☐ Rated capacity in Ampere-hours
- ☐ Nominal Voltage

2. Solar PV MODULES

Solar PV Modules will be procured from companies, complying with the standard set forth in Nepal by AEPC. PV modules shall typically be tested for durability and reliability according to standards developed by the International Electro-technical Commission. Standards IEC61215 (for crystalline silicon modules) include, amongst others, tests for thermal cycling, humidity and freezing, mechanical stress and twist, hail resistance and performance under fixed test conditions.

SN	Description	Specification
2.1	Manufacturer Name	
2.2	Brand/Model	
2.3	Module Capacity	Minimum Module Capacity must be.....(Capacity must be selected as per the type of solar street light mentioned in table 1)
2.4	PV module Type	Mono or Poly Crystalline or Thin Film

2.5	Operating voltage corresponding to the power output (Vmp)	At least 34 Vmp for each module of 24V and 17 Vmp for each module of 12 V for crystalline For thin film the Vmp of the module must be at least 40% higher than the system voltage
2.6	Minimum Module efficiency at STC:	Crystalline: Minimum 14% Thin Film: Minimum 10%
2.7	Power degradation	A letter provided by principal PV module manufacturer in their letter head stating the warranty period for their PV module. The warranty period for the PV Module must be at least 10 years against a maximum 10% reduction and 20 years against a maximum 20% reduction of output power at STC.
2.8	Junction Box	IP 65 or above
2.9	Module Mounted Structure	Non corrosive support structures to be fixed on the top of pole. For areas where there is problem of shading in some of the site of installation, the solar PV module of that particular solar street light system can be installed at rooftop of nearby house. An agreement has to be signed between the user community and the owner of the house for such installations.
2.10	Tilt Angle and direction	towards due south around local latitude
2.11	Support structure design and foundation mounting arrangements should withstand	Wind Speed up to 180 km/hr
2.12	Fasteners (nuts and bolts)	Stainless Steel or hot deep galvanized.
2.13	IEC 61215 (2nd Edition) IEC 61646	Crystalline silicon terrestrial photovoltaic (PV) modules - Design Qualification and type approval. Thin-film Terrestrial Photovoltaic (PV) Modules-Design Qualification and Type Approval
2.14	IEC 61730	PV module safety qualification


2.15	Certifications	RETS Certified
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3. Charge Controller

SN	Description	Specification
3.1	Manufacturer Name	
3.2	Brand/Model	
3.3	Type	Solar Charge Controller or Regulator
3.4	Control Mode	For Type 1, 2 & 3- PWM or MPPT For Type 4, 5, 6 & 7 – MPPT will be preferred With Dusk to Dawn i.e., the lamp automatically switches ON after the sunset and switches OFF after sunrise. Also include at least two stage of dimming function. First stage-system should function at 100% load for six hours and second stage: system should function at 50% load for next 6 hours (with reduced illumination).
3.5	Working Temperature & Humidity	-5 to +55 °C/35 to 85%RH (Without Condensation)
3.6	Protection Function	Solar reverse-charging protection, solar reverse-connection protection, battery over charge protection, battery over-discharge protection, battery reverse-connection protection
3.7	Size	The capacity of charge controller must be (Capacity must be selected as per the type of solar street light mentioned in table 1)
3.8	Certifications	RETS Certified

4. Solar Street Light or Lamp Set

SN	Description	Specification
4.1	Manufacturer Name	
4.2	Brand/Model	
4.3	Type	Light Emitting Diode (LED)
4.4	LED Light Source	The capacity of light must be (Capacity must be selected as per the type of solar street light mentioned in table 1)
4.5	Luminous Efficacy	At least 100 Lumen/watt
4.6	LED Illumination	Street lamp should have illumination not less than 0.5 Lux/Watt perpendiculars from the height of 9 m. The illumination should be uniform without dark rashes on the ground.
4.7	View Angle	Equal or greater than 2 * 50
4.8	Color Rendering Index (CRI)	CRI of Individual WLED must not be less than 60 and the color temperature must be in the range of (5000-6000)°K
4.9	Lamp Rated Total Power	The capacity of light must be (Capacity must be selected as per the type of solar street light mentioned in table 1)
4.10	Control Function	Must have Automatic dusk to dawn function. Also include at least two stage of dimming function. First stage-system should function at 100% load for six hours and second stage: system should function at 50% load for next 6 hours.
4.11	Driver Circuit	Must have Driver circuit cum Charge Controller with not less than 85% efficiency.
4.12	Protection	The lamp must be protected against reverse polarity
4.13	Certification	Must submit IP65 or above Compliance Certificate
4.14	Expected Life:	The proposed LED life shall be minimum 50,000 hours
4.16	Certifications	RETS Certified

The following minimum information must be included in the screen printed label of the LED Street lamp

- a. Brand/Model/Serial number
- b. Nominal power in Watt
- c. Nominal voltage

5. Street Light Pole

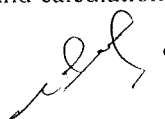
SN	Description	Specification
5.1	Manufacturer Name	
5.2	Type	Hot Deep Galvanized (minimum coating 80 micron?)
5.3	Height	The minimum height of the pole must be (height must be selected as per the type of solar street light mentioned in table 1)
5.4	Thickness of Pole	<u>For 10 meter pole:</u> Top 2.4 meter: 3.65 mm Middle 2.4 meter: 4.5 mm Bottom 5.2 meter: 4.5 mm <u>For 9 meter pole:</u> Top 2.0 meter: 3.25 mm Middle 2.0 meter: 4.5 mm Bottom 5.0 meter: 4.85 mm <u>For 8 meter pole:</u> Top 1.75 meter: 3.25 mm Middle 1.75 meter: 4.85 mm Bottom 4.5 meter: 5.4 mm <u>For 7 meter pole:</u> Top 2.5 meter: 3 mm Bottom 4.5 meter: 4 mm

	Diameter of Pole Sections	<u>For 10 meter pole:</u> Top 2.4 meter: At least 3 inch Middle 2.4 meter: At least 4 inch Bottom 5.2 meter: At least 5 inch <u>For 9 meter pole:</u> Top 2 meter: At least 3 inch Middle 2 meter: At least 4 inch Bottom 5 meter: At least 5 inch <u>For 8 meter pole:</u> Top 1.75 meter: At least 3 inch Middle 1.75 meter: At least 4 inch Bottom 4.5 meter: At least 5 inch <u>For 7 meter pole:</u> Top 2.5 meter: At least 3 inch Bottom 4.5 meter: At least 4 inch
5.5	Arm	Single arm or double arm depending upon site condition and lighting area coverage
5.6	Weight of pole only	<u>For 10 meter pole:</u> At least 150 Kg <u>For 9 meter pole:</u> At least 120 Kg <u>For 8 meter pole:</u> At least 95 Kg <u>For 7 meter pole:</u> At least 75 Kg
5.7	Battery box	A vented, acid proof and corrosion resistant metallic box with a locking arrangement for outdoor use should be provided for housing the battery.

5. Civil Works

The civil works for the proposed Solar Street Lighting System shall include Solar Street Light pole design and installation at the site. The structure should be facing south direction tilted at 30 degree. Pole and Mounting structure must be designed accordingly. It should be able to withstand wind loading of 180Km/hr and support the installed solar modules.

- Bidder must provide the technical design and drawing of the SSL Pole.
- Bidder must provide evidence and calculation showing the structure proposed is safe to be put on the top of pole.




6. Operation and Maintenance Manual

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar Street Lighting System and detail of Wiring and Connection Diagrams shall also be provided with the manual.

7. Warrantee/ Guarantee

- (i) The Solar Street Lighting System must be warranted against any manufacturing/ design/ installation defects and performance warranty for a minimum period of 5 years.
- (ii) PV modules used in the solar street lighting system must be warranted for their rated output
- (iii) The Warrantee/ Guarantee Card to be supplied with the SSL System must contain the details of the system supplied. The manufacturers can provide additional information about the system.
- (iv) During the Warrantee/ Guarantee period, purchaser will have all the rights to cross check the performance of SSL System. Purchaser may carry out the frequent inspections of the system installed and randomly pick up its components to get them tested at any test center. If during such tests any part is not found as per the specified technical parameters, Purchaser will take the necessary action. The decision of Purchaser in this regard will be final and binding to the Bidder.

Safety:

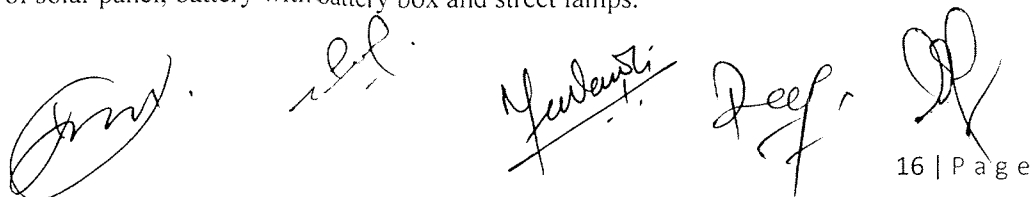
- 1. Metal parts of Solar Street Lighting System must be provided with minimum clearance of 1.25 meter from NEA 400V/11 KV distribution line.
- 2. Proper installation safety like insulating gloves, safety belt, helmets etc.
- 3. The metal item items such as watches, rings and necklaces are all good conductor of electricity and should not be worn around the electrical components.
- 4. Manufacturer instructions shall be followed by the operator for safe operation of solar electrical technology.

Prerequisite for proper functioning of Solar Street Light project:

- 1. Solar PV Module must be cleaned regularly between two to three weeks period depending upon the urban dust.
- 2. It is recommended to do cleaning and greasing of Battery terminal in quarterly basis.

Retrofitting in Existing NEA Pole:

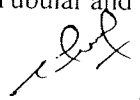
In the areas where there is no sufficient space for new solar street lights to be installed, existing NEA pole can be used for installation of solar street lights. In this type of system, existing pole of NEA will be used for installation of solar panel, battery with battery box and street lamps.



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Centralized Solar Street Lighting System:

For the roads that do not have enough shadow free areas, standalone solar street lighting system is not recommended and only centralized solar PV system is strongly recommended. To this type of street lighting scheme, site specific detail technical survey and design has to be carried out. The centralized system power output shall be of AC power and therefore the selected LED lamp must be of AC type. In centralized system, arrays of PV panels will be fixed at a convenient location and the power output from the source is distributed to the lights in a particular group via distribution cables. For this type of lighting system, since the battery will be installed at one place as one battery bank, use of flooded tubular deep cycle battery in addition to the battery type mentioned above (Gel Tubular and LI Ion) can also be used.



Section - VIII
Bill of Quantities

Notes for Unit Rate Contracts:

Objectives

The objectives of the Bill of Quantities are

- (a) To provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and
- (b) When a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Content

The Bill of Quantities should be divided generally into the following sections:

- (a) Preamble;
- (b) Work Items (grouped into parts);
- (c) Day works Schedule;
- d) Provisional Sums; and
- (d) Summary.

Preamble

The Preamble should indicate the inclusiveness of the unit prices, and should state the methods of measurement which have been adopted in the preparation of the Bill of Quantities and which are to be used for the measurement of any part of the works.

Work Items

The items in the Bill of Quantities should be grouped into sections to distinguish between those parts of the Works which by nature, location, access, timing, or any other special characteristics may give rise to different methods of construction, or phasing of the Works, or considerations of cost. General items common to all parts of the works may be grouped as a separate section in the Bill of Quantities.

Day work Schedule

A Day work Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Employer of the realism of rates quoted by the Bidders, the Day work Schedule should normally comprise the following:

- (a) A list of the various classes of labour, materials, and Constructional Plant for which basic day work rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a day work basis.
- (b) Nominal quantities for each item of Day work, to be priced by each Bidder at Day work rates as bid. The rate to be entered by the Bidder against each basic Day work item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the Contract Data should state the manner in which they will be used, and under whose authority (usually the Project Manager's).

Summary

The Summary should contain a tabulation of the separate parts of the Bill of Quantities carried forward, with provisional sums for Day work, for physical (quantity) contingencies, and for price contingencies (upward price adjustment) where applicable.

These Notes for Preparing Specifications are intended only as information for the Employer or the person drafting the Bidding documents. They should not be included in the final documents.

Preamble of Bill of Quantities

A. General

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical 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 ordered and carried out, as measured by the Contractor and verified by the Project Manager and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Project Manager may fix within the terms of the Contract.
3. For any item for which measurement is based on records made before or during construction the records shall be prepared and agreed between the Engineer and the Contractor. Should the Contractor carry out such work without the prior agreement of the Engineer, the Engineer may request the Contractor to carry out investigations to confirm the extent of the work and the quantity of work certified for payment shall be solely at the Engineer's discretion. The cost of any such investigation shall be borne by the Contractor.
4. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
5. 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 has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
6. 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 Work.
7. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities. The Specification Clause references where given in the item description of the Bills of Quantities are for the convenience of bidders and generally refer to the principal relevant-specification clause but do not necessarily represent the whole of the specification requirements for the work required within the item. The presence of a Specification clause reference shall not in any way reduce the Bidders obligation to complete work in accordance with all the requirements of the Specification.
8. 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 Project Manager in accordance with the Conditions of Contract.
9. The method of measurement of completed work for payment shall be in accordance with the Specifications.
10. The abbreviations and symbols used in this Bill of Quantities are:
[Insert as applicable]

B. Day work Schedule

a) General

1. Work shall not be executed on a day work basis except by written order of the Project Manager. Bidders shall enter basic rates for day work items in the Schedules. These rates shall apply to any quantity of day work ordered by the Project Manager. Nominal quantities have been indicated against each item of day work, and the extended total for day work shall, be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for day work shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

b) Day work Labour

1. In calculating payments due to the Contractor for the execution of day works, the hours for labour will be reckoned from the time of arrival of the labour at the job site to execute the particular item of day work to the time of departure from the job site, but excluding meal breaks and rest periods. Only the time of classes of labour directly doing work ordered by the Project Manager and are competent to perform such work will be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.
2. The Contractor shall be entitled to payment in respect of the total time that labour is employed on day work, calculated at the basis rates entered by it in the " SCHEDULE OF DAY WORK RATES: 1. LABOUR ". The rates for labour shall be deemed to cover all costs to the Contractor including (but not limited to) i) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances, ii) any sums paid to or on behalf of such labour for social benefits in accordance with Nepal law, iii) Contractor's profit, overheads, superintendence, liabilities and insurance and iv) charges incidental to the foregoing.

c) Day work Equipment

1. The Contractor shall be entitled to payments in respect of Constructional Plant already on site and employed on day work at the basis rental rates entered by him in the "SCHEDULE OF DAY WORK RATES:2 EQUIPMENT ". The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricant, and other consumables and all overhead, profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants also shall be included in the rate of the equipment and no separately payment shall be made for it.
2. In calculating the payment due to the Contractor for Constructional Plant employed on day work, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Project Manager, the travelling time from the part of the Site where the Construction Plant was located when ordered by the Project Manager to be employed on day work and the time for return journey there to shall be included for payment.

d) Day work Materials

1. The Contractor shall be entitled to payment in respect of materials used for day work (except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore), at the rates entered by him in the "SCHEDULE OF DAY WORK RATES: 3 MATERIALS" and shall be deemed to include overhead charges and profit as follows;
 - (i) the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc. and shall provide for delivery to store for stockpiling at the Site.
 - (ii) the cost of hauling materials for use on work ordered to be carried out as day work, from the store or stockpile on the Site to the place where it is to be used also shall be include in the same rate.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic

supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Project Manager's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Employer to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

Bill of Quantities

1 Provisional Sum						
Procument Item Details						
Sl. No.	Item Description	Unit	Quantity	Unit Rate (NPR)	Amount (NPR)	
1			0.0	0.0	0.00	
2 Construction work						
Procument Item Details						
Sl. No.	Item Description	Unit	Quantity	Bidder's Rate (NPR)	Bidder's Rate (in words)	Total Amount (NPR)
1	Solar PV Panel(200wp,2panel of 100W)	Nos.	11.00			
2	Battery 12V (100 lead Acid 100AH 12Volt or Li -Ion 75AH 12Volt (900WH)	Nos	11.00			
3	Charge controller with(Min 15amp) with inbuilt dusk to dawn Charge Controller with auto dimming Fuction.(20 A 12/24 volt)	Nos.	11.00			
4	Lamp(lLED) 40 watt	Nos.	11.00			
5	Interconnecting wires & other accessories(Nuts,bolts, earthing etc.) or Pole accessories	Nos.	11.00			
6	Installation and transportation	Nos.	11.00			
7	single arm & Double arm Galvanized Pole 9m long	Nos.	11.00			
8	Civil Works(Installation and Commissioning)	Nos.	11.00			
Total of Procument Items						
Total Item Price						
VAT						
Grand Total						

Section - IV
General Conditions of Contract

Section VII. General Conditions of Contract (GCC)

1. General Provisions	
1.1 Definitions	In the Contract as defined below, the words and expressions defined shall have the following meanings assigned to them, except where the context requires otherwise:
The Contract	1.1.1 “Contract” means the Agreement signed between the Employer and the contractor and the other documents listed in the Special Conditions of Contract (SCC). 1.1.2 “Specification” means the document as listed in the SCC, and any variation to such document. 1.1.3 “Drawings” means the Employer’s drawings of the Works as listed in the SCC, and any variation to such drawings. 1.1.4 “Bill of Quantities” means the priced and completed bill of quantities forming part of the Tender. 1.1.5 “Bid or Quotation” means the contractor’s priced offer to the Employer for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Acceptance. 1.1.6 “Letter of Acceptance” means the formal acceptance by the Employer of the bid or Tender.
Persons	1.1.7 “Employer” means the person named in the Agreement and the legal successors in title to this person, but not (except with the consent of the contractor) any assignee. 1.1.8 “Contractor” means the person named in the Agreement and the legal successors in title to this person, but not (except with the consent of the Employer) any assignee. 1.1.9 “Party” means either Employer or the contractor.
Date, Times and Periods	1.1.10 "Commencement Date" means the date stated in the SCC after the date the Agreement comes into effect or any other date agreed between the Parties. 1.1.11 "Day" means a calendar day.

	1.1.12 "Time for Completion" means the time for completing the Works as stated in the SCC (or as extended under Sub-Clause 6.3), calculated from the Commencement Date.
Money and Payments	1.1.13 "Cost" means all expenditure properly incurred (or to be incurred) by the contractor, whether on or off the Site, including overheads and similar charges, but does not include profit. 1.1.14 "Contract Price" means the sum stated in the Letter of Acceptance as payable to the contractor and adjusted with any Variation Orders and Other Adjustments upon completion of the works and the remedying of any defects therein in accordance with the provisions of the Contract. 1.1.15 "Retention Money" means the aggregate of all monies retained by the Employer pursuant to Sub-Clause 10.3
Other Definitions	1.1.16 "Contractor's Equipment" means all apparatus, machinery, vehicles, facilities and other things required for the execution of the Works but does not include Materials or Plant. 1.1.17 "Country" means Nepal. 1.1.18 "Employer's Liabilities" means those matters listed in Sub-Clause 5.1. 1.1.19 "Materials" means things of all kinds (other than Plant) intended to form or forming part of the permanent work. 1.1.20 "Plant" means the machinery and apparatus intended to form or forming part of the Permanent Works. 1.1.21 "Site" means the places provided by the Employer where the Works are to be executed, and any other places specified in the Contract as forming part of the Site. 1.1.22 "Variation" means any change which is a result of unforeseen circumstances that arise as a result of instruction by the Employer/ Engineer under Sub-Clause 9.1. 1.1.23 "Works" means all the work and design (if any) to be performed by the contractor including temporary work and any Variation. 1.1.24 "Permanent Works" means the permanent works to be executed (Including Plant) in accordance with the Contract. 1.1.25 "Temporary Works" means all temporary works of every kind (other than contractor's Equipment) required in or about the execution and completion of the Works and the remedying of any defects therein.
1.2 Interpretation	Words importing persons or parties shall include firms and organisations. Words importing singular or one gender shall include plural or the other gender where the context requires.
1.3 Priority of Documents	The documents forming the Contract shall to be taken as mutually explanatory of one another. If an ambiguity or discrepancy is found in the documents, the Employer shall issue any necessary instructions to the contractor, and the priority of the documents shall be in accordance with the order as listed in the SCC .
1.4 Law	The law of the Contract is stated in the Law of Nepal.

1.5 Communications	Where provision is made for the giving or issue of any notice, instruction, or other communication by any person, unless otherwise specified such communication shall be written in the language stated in the SCC as shall not be unreasonably withheld or delayed. If a notice given pursuant to Sub Clause 1.5 fails to be delivered due to failure to trace the address of the party then the notice shall be published as public notice in a National daily newspaper and when the notice is so published then the notice shall be considered to be delivered to the concerned party.
1.6 Statutory Obligations	The contractor shall comply with the laws of Nepal where activities are performed. The contractor shall give all notices and pay all fees and other charges in respect of the Works.
2. The Employer	
2.1 Provision of Site	The Employer shall provide the Site and right of access thereto at the times stated in the SCC.
2.2 Permits and Licenses	The Employer shall, if requested by the contractor, assist him in applying for permits, licences or approvals which are required for the Works.
2.3 Employer's Instructions	The contractor shall comply with all instructions given by the Employer in respect of the Works including the suspension of all or part of the Works.
2.4 Approvals	No approval or consent or absence of comment by the Employer or the Employer's representative shall affect the contractor's obligations.
3. Employer's Representatives	
3.1 Authorised Person	One of the Employer's personnel shall have authority to act for him. This authorised person shall be as stated in the SCC, or as otherwise notified by the Employer to the contractor.
3.2 Employer's Representative	The Employer may also appoint a firm or individual to carry out certain duties. The appointee may be named in the SCC, or notified by the Employer to the contractor from time to time. The Employer shall notify the contractor of the delegated duties and authority of this Employer's representative.
4. The Contractor	
4.1 General Obligations	The contractor shall carry out the Works properly and in accordance with the Contract. The contractor shall provide all supervision, labour, Materials, Plant and contractor's Equipment which may be required. All Materials and Plant on Site shall be deemed to be the property of the Employer. During continuance of the of the contract, the contractor and his sub-contractors shall abide at all times by all labour laws, including child labour related enactments, and rules made there under. A child who has not attained the age of fourteen years shall not be employed in any work as a labourer.

4.2 Contractor's Representative	The contractor shall submit to the Employer for consent the name and particulars of the person authorised to receive instructions on behalf of the contractor.
4.3 Subcontracting	The contractor shall not subcontract the Works.
4.4 Performance Security	As stated in the SCC , the Contractor shall deliver to the Employer no later than the date specified in the Letter of Acceptance.
5. Employer's Liabilities	
5.1 Employer's Liabilities	In this Contract, Employer's Liabilities mean: a. war, hostilities (whether war be declared or not), invasion, act of foreign enemies, within the Country, b. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war, within the Country, c. riot, commotion or disorder by persons other than the contractor's personnel and other employees, affecting the Site and/or the Works. d. use or occupation by the Employer of any part of the Works, except as may be specified in the Contract, e. design of any part of the Works by the Employer's personnel or by others for whom the Employer is responsible, f. any operation of the forces of nature affecting the Site and/or the Works, which was unforeseeable or against which an experienced contractor could not reasonably have been expected to take precautions g. a suspension under Sub-Clause 2.3 unless it is attributable to the contractor's failure, h. any failure of the Employer, i. physical obstructions or physical conditions, other than climatic conditions, encountered on the Site during the performance of the Works, which obstructions or conditions were not reasonably foreseeable by an experienced contractor and which the contractor immediately notified to the Employer, j. any delay or disruption caused by any Variation, k. any change to the law of the Contract after the date of the contractor's offer as stated in the Agreement, l. losses arising out of the Employer's right to have the permanent work executed on, over, under, in or through any land, and to occupy this land for the permanent work, and m. damage which is an unavoidable result of the contractor's obligations to execute the Works and to remedy any defects.
6. Time for Completion	
6.1 Execution of the Works	The contractor shall commence the Works on the Commencement Date and shall proceed expeditiously and without delay and shall complete the Works within the Time for Completion.
6.2 Programme	The contractor shall submit to the Employer a programme for the Works within the time stated in the SCC

6.3 Extension of Time	The contractor shall be entitled to an extension to the Time for Completion if he is or shall be delayed by any of the Employer's Liabilities. The contractor shall submit an application to the Employer for extension of time, stating the causes for delay, 21 days before the expiry of the Contract completion date. On receipt of an application from the contractor, within 21 days , the Employer shall consider all supporting details provided by the contractor and shall decide extend the Time for Completion as appropriate.
6.4 Liquidated Damages for Delay	If the contractor fails to complete the Works within the Time for Completion, the contractor's liability to the Employer for such failure shall be to pay the amount stated in the SCC for each day for which he fails to complete the Works.
7. Taking-Over	
7.1 Completion	The contractor may notify the Employer when he considers that the Works are complete. In addition to the other provisions, before acceptance of the completed works, Employer shall verify and assure that such works are within the set objective, quality and appropriate to operate and use.
7.2 Taking-Over Notice	The Employer shall notify the Contractor when he considers that the Contractor has completed the Works stating the date accordingly. Alternatively, the Employer may notify the Contractor that the Works, although not fully complete, are ready for taking over, stating the date accordingly. The Employer shall take over the Works upon the issue of this notice. The Contractor shall promptly complete any outstanding work and, subject to Clause 8, clear the Site.
8. Remedying Defects	
8.1 Remedying Defects	The Employer may at any time prior to the expiry of the period stated in the SCC, notify the Contractor of any defects or outstanding work. The Contractor shall remedy at no cost to the Employer any defects due to the Contractor's design, materials, plant or workmanship not being in accordance with the Contract. Failure to remedy any defects or complete outstanding work within a reasonable time of the Employer's notice shall entitle the Employer to carry out all necessary work at the Contractor's cost.
8.2 Uncovering and Testing	The Employer may give instruction as to the uncovering and/or testing of any work. Unless as a result of any uncovering and/or testing it is established that the contractor's design, materials, plant or workmanship are not in accordance with the Contract, the Contractor shall be paid for such uncovering and/or testing as a Variation in accordance with Sub-Clause 9.2.
9. Variations and Claims	
9.1 Right to Vary	The Employer may instruct Variations.

9.2 Valuation of Variations	Variations shall be valued as follows: - where appropriate, at rates in the Contract, or - in the absence of appropriate rates, the rates in the Contract shall be used as the basis for valuation or - at appropriate new rates, as may be agreed or which the Employer considers appropriate.
9.4 Right to Claim	If the contractor incurs cost as a result of any of the Employer's Liabilities, the contractor shall be entitled to the amount of such cost. If as a result of any of the Employer's Liabilities, it is necessary to change the Works, this shall be dealt with as a Variation.
9.5 Variation and Claim Procedure	The contractor shall submit the Employer an itemised make-up of the value of Variations and claims within 7 days of the instruction or of the event giving rise to the claim. The Employer shall check and if possible agree the value. In the absence of agreement, the Employer shall determine the value.
10. Contract Price and Payment	
10.1 Valuation of the Works	The Contract Bill of Quantities and the approved Variation quantities shall be used to calculate the valuation of the works completed. The Contractor shall be paid for the quantity of work done at the rate in the Bill of Quantities or rate agreed pursuant to clause 9.2 for varied works.
10.2 Payments Certificates	The Contractor shall submit to the Employer monthly statements of the estimated value of the works completed less the cumulative amount certified previously. The Employer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor
10.3 Payments	The Employer shall pay to the contractor the amount certified less retention at the rate stated in the SCC within 30 days of the date of each certificate.
10.4 Payment of Retention	One half of the retention shall be repaid by the Employer to the contractor within 30 days upon expiry of Defects Liability Period and the Employer has certified that the notified defects have been corrected. The remainder of the retention shall be paid by the Employer to the contractor within 7 days after submission of evidence document from the concerned Internal Revenue Office that the contractor has submitted his Income Returns
10.5 Advance Payment	10.5.1 The Employer shall make advance payment to the Contractor of the amounts stated in the SCC in two equal installments by the date stated in the SCC, against provision by the Contractor of an unconditional bank guarantee from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal in a form acceptable to the Employer in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

	10.5.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager. 10.5.3 The advance payment shall be repaid by deducting proportionate amounts, as stated in SCC, from payments otherwise due Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.
10.6 Local Taxation & Value Added Tax	a. The prices quoted by the Contractor shall include all taxes that may be levied in accordance to the laws and regulations in being in Nepal. b. The Contractor shall pay VAT in the concerned VAT office within time frame specified in VAT regulation.
11. Termination of Contract and Payment	11.1 The Employer may terminate the Contract at any time if the contractor; - does not commence the work as per the Contract, - abandons the work without completing, - fails to achieve progress as per the Contract. 11.2 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. 11.3 Fundamental breaches of Contract shall include, but shall not be limited to, the following : - The Contractor uses the advance payment for matters other than the contractual obligations, - the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager; - the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days; - the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation. - a payment certified by the Project Manager is not paid by the Employer to the Contractor within 90 days of the date of the Project Manager's certificate; - the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager; - The Contractor fails to update the Program as per the contract and demonstrate acceleration of the works within a reasonable period of time determined by the Project Manager; - the Contractor does not maintain a Security, which is required; - the Contractor has delayed the completion of the Works by the number of

	days for which the maximum amount of liquidated damages can be paid, as defined in the SCC 6.4 ; and (j) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. 11.5 Notwithstanding the above, the Employer may terminate the Contract for convenience. 11.6 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.
	11.7 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer. 11.8 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate. 11.9 If the Contract is terminated because of fundamental breach of Contract or for any other fault by the Contractor, the performance security shall be forfeited by the Employer. In such case, amount to complete the remaining works as per the Contract shall be recovered from the Contractor as Government dues.
12. Risk and Responsibility	
12.1 Contractor's Care of the Works	The contractor shall take full responsibility for the care of the Works from the Commencement Date until the date of the Employer's notice under Sub-Clause 7.2. Responsibility shall then pass to the Employer. If any loss or damage occurs to the Works during the above period, the contractor shall rectify such loss or damage so that the Works conform to the Contract.
12.2 Force Majeure	If a Party is or shall be prevented from performing any of its obligations by Force Majeure, the Party affected shall notify the other Party immediately. If necessary, the contractor shall suspend the execution of the Works and, to the extent agreed with the Employer, demobilise the contractor's Equipment. If the event continues for a period of 90 days, either Party may then give notice of termination which shall take effect 30 days after the giving of the notice. After termination, the contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the Materials and Plant reasonably delivered to the Site, adjusted by the following: a. any sums to which the contractor is entitled under Sub-Clause 9.4,

	b. the Cost of his suspension and demobilisation, c. any sums to which the Employer is entitled. The net balance due shall be paid or repaid within 30 days of the notice of termination.
13. Resolution of Disputes	
13.2 Amicable Settlement	The Employer and the Contractor shall attempt to settle amicably by direct negotiation any disagreement or dispute arising between them under or in connection with the Contract.
14. Conduct of Bidders	14.1 The Bidder shall be responsible to fulfill his obligations as per the requirement of the Contract Agreement, Bidding documents, GoN's Procurement Act and Regulations. 14.2 The Bidder shall not carry out or cause to carry out the following acts with an intention to influence the implementation of the procurement process or the procurement agreement : a) give or propose improper inducement directly or indirectly, b) distortion or misrepresentation of facts c) engaging or being involved in corrupt or fraudulent practice d) interference in participation of other prospective bidders. e) coercion or threatening directly or indirectly to cause harm to the person or the property of any person to be involved in the procurement proceedings, f) collusive practice among bidders before or after submission of bids for distribution of works among bidders or fixing artificial/uncompetitive bid price with an intention to deprive the Employer the benefit of open competitive bid price.. g) contacting the Employer with an intention to influence the Employer with regards to the bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract
15. Blacklisting Bidder	15.1 Without prejudice to any other right of the Employer under this Contract, GoN, Public Procurement Monitoring Office may blacklist a bidder for his conduct up to three years on the following grounds and seriousness of the act committed by the bidder: a) if it is proved that the bidder committed acts pursuant to the Sub - Clause 14.2, b) if it is proved later that the bidder/contractor had committed substantial defect in implementation of the contract or had not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract , c) if convicted by a court of law in a criminal offence which disqualifies the bidder from participating in the contract. d) if it is proved that the contract agreement signed by the bidder was

	based on false or misrepresentation of bidder's qualification information, e) other acts mentioned in the Bidding Data 15.2 A firm declared blacklisted and ineligible by the GON shall be ineligible to bid for a contract during the period of time determined by the PPMO.
16. Provision of PPA and PPR	If any provision of this document are inconsistent with Public Procurement Act (PPA), 2063 or Public Procurement Regulations (PPR), 2064, the provision of this documents shall be void to the extent of such inconsistency and the provision of PPA and PPR shall prevail.

Section - V
Special Conditions of Contract

Section VIII - Special Conditions of Contract (SCC)	
This SCC forms part of the Agreement [Note: with the exception of the items for which the Purchaser's requirements have been inserted, the Bidder shall complete the following information before submitting his Sealed Quotation.]	
1.1.1	Documents forming the Contract listed in the order of priority: 1. The Agreement 2. Special Conditions of Contract 3. General Conditions of Contract 4. The Technical Specifications 5. The Drawings 6. The Bill of Quantities
1.1.12	The indented completion date for the works shall be 2082.03.16 .
1.5	The language of the contract is ENGLISH/NEPALI.
2.1	The Site Possession Date(s) shall be: within 2 days of signing on agreement
3.1	The Authorised person is : Sidda Pandit
3.2	Name and Address of Employer's representative is : Lal Thapa, Chainpur
4.4	The Performance Security amount is: : 5% i) If bid price of the bidder selected for acceptance is up to 15 (fifteen) percent below the approved cost estimate, the performance security amount shall be 5 (five) percent of the bid price. ii) For the bid price of the bidder selected for acceptance is more than 15 (fifteen) percent below of the cost estimate, the performance security amount shall be determined as follows: Performance Security Amount = [(0.85 x Cost Estimate –Bid Price) x 0.5] + 5% of Bid Price. The Bid Price and Cost Estimate shall be inclusive of Value Added Tax
6.2	Time for the submission of programme : 15 days.
6.4	Liquidated Damages for Delay is 0.05% of the Contract Price per day up to a maximum of 10% of sum stated in the Agreement.
8.1	Period for notifying defects is 10 days calculated from the date stated in the notice under Sub-Clause 7.2.
10.5.1	The Advance Payments shall NOT be applicable
10.5.3	Deductions from Payment Certificates will commence in the first certificate in which the Value of works executed exceeds 30% of the Contract Price. Deduction will be at the rate of 0% of the respective Monthly Interim Payment Certificate until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the end of 80 % of the approved contract price.

Section - IX

Contract Forms

Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

Letter of Acceptance

[on letterhead paper of the Employer]

Date:

To: name and address of the Contractor

Subject: Notification of Award

This is to notify that your Quotation dateddatefor execution of the.....name of the contract and identification number, as given in the SCC for the Contract price of Nepalese Rupees [insert amount in figures and words in Nepalese Rupees], as corrected in accordance with the Instructions to Bidders is hereby accepted in accordance with the Instruction to Bidders.

You are hereby instructed to contact this office to sign the formal contract agreement within 7 days with Performance Security of[specify the performance security amount computed as per ITB 22.2 and 25.1] consisting of a Bank Guarantee in the format included in Section IX (Contract Forms) of this Bidding Document.

The Employer shall forfeit the bid security, in case you fail to furnish the Performance Security and to sign the contract within specified period.

Authorized Signature:

Name and Title of Signatory:

Contract Agreement

THIS AGREEMENT made theday of between..... name of the Employer (hereinafter "the Employer"), of the one part, andname of the Contractor(hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as name of the Contractshould be executed by the Contractor, and has accepted a Quotation by the Contractor for the execution and completion of these Works and the remedying of any defects in the sum of NRs[insert amount of contract price in words and figures including taxes] (hereinafter "the Contract Price").

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement.
 - (a) the Letter of Acceptance;
 - (b) the Letter of Bid;
 - (c) the Addenda Nos insert addenda numbers if any
 - (d) the Special Conditions of Contract;
 - (e) the General Conditions of Contract;
 - (f) Bills of Quantities (BOQ);
 - (g) the Specification;
 - (h) the Drawings;
 - (i) the Activity Schedules; and
 - (j).....[Specify if there are any other document]
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity 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 and the remedying of defects therein, 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.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Nepal on the day, month and year indicated above.

Signed by
for and on behalf the Contractor in the
presence of

Signed by.....
for and on behalf of the Employer in the
presence of

Witness, Name Signature, Address, Date

Witness, Name, Signature, Address, Date

Performance Security

Bank's Name, and Address of Issuing Branch or Office

(On Letter head of the Commercial bank or any Financial Institution eligible to issue Bank

Guarantee as per prevailing Law)

..... **Bank's Name, and Address of Issuing Branch or Office**Beneficiary:

..... Name and Address of Employer

Date:

Performance Guarantee No.:.....

We have been informed that ... **... [insert name of the Contractor]** (hereinafter called "the Contractor") has been notified by you to sign the Contract No. **[insert reference number of the Contract]** for the execution of **[insert name of contract and brief description of Works]** (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we..... **[insert name of the Bank]** hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of**[insert name of the currency and amount in figures*]** (... **insert amount in words**) such sum being payable in Nepalese Rupees, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the.....Day of **, and any demand for payment under it must be received by us at this office on or before that date.

.....
Seal of Bank and Signature(s)

Note:

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

* The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract in Nepalese Rupees.

** Insert the date thirty days after the date specified for the Defect Liability Period. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee".

Advance Payment Security

Bank's Name, and Address of Issuing Branch or Office

**(On Letter head of the Commercial bank or any Financial Institution eligible to issue Bank
Guarantee as per prevailing Law)**

..... **Bank's Name, and Address of Issuing Branch or Office**.....

Beneficiary:**Name and address of employer**

Date :

Advance Payment Guarantee No.....

We have been informed thathas entered into Contract No. **Name and Address of Employer**.....**name of the Contractor**.....(hereinafter called "the Contractor")..reference number of the Contract.....dated with you, for the execution of ...contract and brief description of Works (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum..... name of the currency and amount in figures*...(.... **amount in words**) is to be made against an advance payment guarantee.

At the request of the Contractor, we... **name of the Bank** hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of.....name of the currency and amount in figures*.....(**amount in words**)upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty (80) percent of the Contract Price has been certified for payment, or on the day of**, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

.....
Seal of Bank and Signature(s)

Note:

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

*The Guarantor shall insert an amount representing the amount of the advance payment in Nepalese Rupees of the advance payment as specified in the Contract.

** Insert the date Thirty days after the expected completion date. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee".