

MEGHALAYA STATE DESIGNATED AGENCY
OFFICE OF THE SENIOR ELECTRICAL INSPECTOR
LOWER LAUCHUMIERE SHILLONG - 793001

(DOMESTIC COMPETITIVE BIDDING)

INVITATION TO BIDS FOR REPLACEMENT OF EXISTING INCANDESCENT LAMP BY LED IN MAWPYNTHIH VILLAGE OF MEGHALAYA STATE ON TURNKEY BASIS UNDER “LED VILLAGE CAMPAIGN”

1.0 The MSDA has been entrusted by the BUREAU OF ENERGY EFFICIENCY BEE for Replacement of EXISTING INCANDESCENT/FLOURESCENT LAMP BY LED IN MAWPYNTHIH VILLAGE OF MEGHALAYA STATE

The execution of the project shall be funded by the BUREAU OF ENERGY EFFICIENCY BEE Govt of India Ministry of power.

1.1 The project shall be executed under the following packages for which the MSDA invites sealed bids under domestic competitive bidding:-

LED Village campaign in MAWPYNTHIH village of East Khasi Hills District, Meghalaya approved vides No.02/42/SDA/12/58342 dated 7 th January 2014.

2.0 Scope of work:-

Surveying, Design, Engineering, Testing, Supply, Erection of Signboard and replacement of existing incandescent/fluorescent lamps by LED..
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The bidder can quote for the above, provided he satisfies the provisions as given in Para 4.0 below.

2.1 The aforesaid scope of work is only indicative. The detailed scope is described in Bidding documents, which are available for inspection and sale, at the address mentioned at Para 9.0, as per detailed given below:-

Inspection & sale of Bidding Documents	
Cost of Bidding Documents	Rs 500/- (Rupees Five hundreds)Only through)crossed Demand Draft payable at par in SBI, Main Branch, Shillong in favor of Senior Electrical Inspector and State Designated Agency

3.0 Bidding Documents are non – transferable and can be obtained by the interested firms or their authorized representatives on submission of a written application and on payment of non refundable specified amount. Issuance of the Bidding Documents, however, shall not automatically means that such firm fulfills/meets the Qualifying Requirements.

- 4.0 The detailed Qualifying Requirement (QR) are given in the Bidding Document of the subject package. The complete bidding documents are available at website of the MSDA i.e. www.msda.nic.in. Interested bidders can download the bidding documents and commence preparation of bids to gain time. However, they will be required to purchase the bidding documents enclosing the Demand Draft amounting to Rs 500/- payable at par in SBI, Main Branch, Shillong in favor of Senior Electrical Inspector and State Designated Agency on Energy Conservation , (for submission of the bid), which will be duly authenticated by the executive issuing the documents. In case of any discrepancy between the documents downloaded by the prospective bidder and the Bid Documents (hard copy) issued by the MSDA official, the latter shall prevail.
- 5.0 Bids must be delivered to the MSDA at the address mentioned at Para 9.0 below. Bids will be received and open in present of Bidders' representatives who choose to be present, as per following schedule:-

Last date and time for submission of Bids	13/03/2014 at 2:00 PM
Bid opening date and time	14/03/2014 at 3:00 PM

- 6.0 All the bids must be accompanied by a EMD of the following amount in a separate sealed envelope without which the bid shall be returned to Bidder unopened:

Earnest Money Deposit (EMD)

The Earnest Money Deposit of 2% of the value of offer quoted by the tenderer shall be paid by each tenderer, in the form of crossed Demand Draft drawn in favour of **Senior Electrical Inspector and the State Designated Agency on Energy Conservation.** to be enclosed along with the sealed tender;

- 7.0 The successful bidder will be required to furnish a Contract Performance Guarantee for fifteen percent (15%) of the total contract price on award of the Contract.
- 8.0 The MSDA will not be responsible for misplacement/delay in receipt of either request for issuance of Bidding Documents or Bidding Documents or Bids sent by post.
- 9.0 All correspondence/communication including those pertaining to purchase of Bidding Documents and submission of Bids with regard to the above shall be made at the following address of the MSDA :-

**The Senior Electrical Inspector & SDA on Energy Conservation
Govt of Meghalaya,
Lower Lauchumiere, Shillong-793001
Meghalaya, India.**

- 10.0 The MSDA reserves the right to cancel/withdraw the bid without assigning any reason for such decision. Such decision will not incur any liability whatsoever on the part of the MSDA consequently.

(P.K.Shullet)
Senior Electrical Inspector &
State Designated Agency on Energy Conservation
Govt of Meghalaya

Memo. No.

Dated: 26.02.2014

Copy to : -

1. The Commissioner & Secretary Power Department, for favor of information
2. State Informatic Officer NIC, Meghalaya, Shillong for uploading the complete document in the MSDA Website at msda.nic.in.

(P.K.Shullet)
Senior Electrical Inspector &
State Designated Agency on Energy Conservation
Govt of Meghalaya

INSTRUCTION TO BIDDERS

A. INTRODUCTION

1.0 GENERAL INSTRUCTIONS

- 1.1 The MSDA (implementer of the project) will receive bids in respect of equipments to be furnished and installed as set forth in the accompanying Specifications. All bids shall be prepared and submitted in accordance with these instructions.

2.0 QUALIFYING REQUIREMENTS OF BIDDERS

- 2.1 This bidding is open to any manufacturer or erector who provides satisfactory evidence concerning the following that he:
 - a. is a qualified manufacturer or erector who regularly manufactures or installs the equipment of the type specified and has adequate technical knowledge and practical experience:
 - b. has adequate financial stability and status to meet the financial obligation pursuant to the scope of the works (the Bidders should submit at least 5 copies of the Profit and Loss Account and Balance Sheet for the last 5 years)

- c. A firm whose technical expert is engaged by MSDA for consultancy is barred from participating in the bid.

3.0 COST OF BIDDING

- 3.1 The Bidder shall bear all costs and expenses associated with preparation and submission of its Bid including post-bid discussions, technical and other presentation etc

4.0 UNDERSTANDING OF BIDDING DOCUMENTS

- 4.1 A prospective Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents and fully inform himself as to all the conditions and matters which may in any way affect the scope of work or the cost thereof. Failure to furnish all information required by the Bidding Documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in the rejection of its Bid.

5.0 CLARIFICATIONS ON BIDDING DOCUMENTS

- 5.1 A prospective Bidder requiring any clarification on Bidding Documents may notify the MSDA in writing. The MSDA will respond in writing to any request for such clarification of the Bidding Documents which it receives not later than fifteen (15) days prior to the deadline for submission of bids prescribed by the MSDA. Written copies of the MSDA's response (including an explanation of the query but without identifying its source) will be sent to all prospective bidders which have received the Bidding Documents.

6.0 AMENDMENT TO BIDDING DOCUMENTS

- 6.1 At any time prior to the deadline for submission of bids, the MSDA may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by amendment (s).
- 6.2 The amendment will be notified in writing or by telex or cable to all prospective Bidders, which have received the Bidding Documents at the address contained in the letter of request for issue of Bidding Documents from the Bidders. MSDA will bear no responsibility or liability arising out of non-receipt of the same in time or otherwise.

- 6.3 In order to afford prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the MSDA may, at its discretion, extend the deadline for submission of bids.
- 6.4 Such amendments, clarifications, etc, shall be binding on the bidders and will be given due consideration by the bidders while they submit their bids and invariably enclose such documents as a part of the Bid.

7.0 LANGUAGE OF BID

- 7.1 The Bid prepared by the Bidders and all correspondence and documents relating to the bid, exchanged by the Bidder and the MSDA, shall be written in the English language

8.0 LOCAL CONDITIONS

- 8.1 It will be imperative on each bidder to fully inform himself of all local conditions and factors which may have any effects on the execution of the contract ‘

9.0 DOCUMENTS COMPRISING THE BID

9.1 The Bidder shall complete the Bid Form inclusive of Price Schedules, Technical Data Sheets etc. furnished in the Bidding Documents, indicating; for the goods to be supplied and services to be rendered, a brief description of goods and services; quantity and prices.

9.2 The bidder shall also submit documentary evidence to establish that the Bidder meets the qualification requirements as detailed in the technical specifications.

10.0 SCOPE OF THE PROPOSAL

- 10.1 The scope of the proposal shall be on the basis of a single Bidder’s responsibility, completely covering all the equipment specified under the accompanying Technical Specification. It will include the following:
- a. Supply and installation of 1,600 LED bulbs of 8W capacity in households and public arrears in village Mawpynthih, East Khasi Hills, Meghalaya.

- b. The equipment design shall fully conform to the specifications as outlined in Technical Specification for LED as per Annexure-1
- c. Demonstration that the bidder / supplier has the necessary technical competence to conduct in house quality assurance and testing of LED products. Bidder shall establish his compliance with the same.
- d. Packing and transportation from the manufacturer's works to the Site.
- e. Receipt, storage, preservation and conservation of equipment at the Site.
- f. Pre-assembly, if any, erection, testing and commissioning of all the equipment.
- g. Reliability tests and performance and guarantee tests on completion of commissioning;
- h Labeling of supplied LED as(Not for sale-BEE LED VILLGE)
- i Annual Maintenance Contract (AMC) of at least three years

The scope and quantum of work is indicated in the table below:-

District	Name of the Village	No. of bulbs	No. of Sign Boards	Estimated amount	Earnest Money	Consignee and Place of Delivery
East Khasi Hills	Mawpy nthih	1600 (3-5 bulbs per house)	2	1800000/- (inclusive of Taxes)	2% of the value of offer quoted by the tenderer	Senior Electrical Inspector & State Designated Agency on Energy Conservation, Lower Lachumiere Shillong-793001, Meghalaya.

- j. After the completion of installing the LED bulbs in all households, community halls, schools, health centers and after the meter readings of the energy input into the village have been taken, indicating that there is an energy saved as an outcome of the implementation of the project, the bidder / contractor is required to erect a signboard at a suitable location, preferably near the Sub-Station or any other prominent location of the village indicating that the project has been successfully implemented.

10.2 Proposal for the Signboard:- The language/ script of the Signboard should be in English and uniform including the color pattern. The sample for the language of the script on the Board is as per **Annexure –A**. The general specification is as per Annexure-II

The plan view of the signboard is as per Annexure-B

10.3 The Guaranteed Technical Particulars as per Annexure-C is to be submitted by the bidder

- 10.4 Bids not covering the above entire Scope of Work may be treated as incomplete and hence rejected.

11.0 BID PRICE

- 11.1 The Bidder shall quote in the appropriate schedule of the Bid Form, lump-sum price for the entire Scope of Work (covered under the Bidding Documents) and also the unit rates of the goods it proposes to supply
- 11.2 The Bidder shall also furnish the price break-up in the appropriate schedules of Bid Form to indicate the following:
- i. Ex-works price of the equipment / materials
 - ii. Charges for inland transportation and insurance for delivery of the equipment/materials up to their final destinations.
 - iii. Lump-sum charges towards unloading, storage, insurance, installation, testing and commissioning.
 - v. Sales Tax/VAT and any other statutory levies payable on the transactions between the MSDA and the Bidder.

12.0 Bidder shall indicate Bid prices in Indian Rupees only.

13.0 TIME SCHEDULE

- 13.1 The basic consideration and the essence of the Contract shall be strict adherence to the time schedule for performing the specified works.
- 13.2 The time schedule is 45 days after awarding the contract. In the event that the Bidder fails to complete the work within the stipulated period, penalty may be charged at the rate of 5% of the work order per month of delay.

14.0 BRAND NAMES

- 14.1 The Bidder shall note that standards for workmanship, material and equipment designated by the MSDA in its Technical Specification are intended to be descriptive only and not restrictive. The Bidder may substitute alternative

standards, brand name and/or catalogue numbers in its Bid, provided that it demonstrates to the MSDA's satisfaction that the substitutions are substantially equivalent or superior to those designed in the Technical Specification.

SUBMISSION OF BIDS

15.0 FORMAT OF BID

- 15.1 The Bidder shall prepare five copies of the Bid, clearly marking each "Original Bid" and "Copy of Bid", as appropriate. In the event of any discrepancy between them, the original shall govern.
- 15.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The letter of authorization shall be indicated by written power-of-attorney accompanying the Bid. All pages of the Bid, except for unamended printed literature, shall be initialed by the person or persons signing the Bid.
- 15.3 The Bidders must submit the qualifying data in five copies, as required in these Instructions to Bidder in Separate envelope sealed and enclosed in the envelope submitting proposals, super-scribed as under:
- 15.4 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

16.0 SIGNATURE OF BIDS

- 16.1 The Bid must contain the name, residence and place of business of the person or persons making the Bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.
- 16.2 The Bidder's name stated on the proposal shall be exact legal name of the firm.
- 16.3 Bids not conforming to the above requirements of signing may be disqualified.

17.0 SEALING AND MARKING OF BIDS

- 17.1 The Bidders shall seal the original and each copy of the Bid in an inner and an outer envelope, duly marking the envelopes as “Original” and “Copy”.
- 17.2 The inner and outer envelopes shall be:
- a) Addressed to the SDA at the following address:

**Senior Electrical Inspector & SDA on Energy Conservation
Inspectorate of Electricity
Horse Shoe Building, Lower Lachumere, Shillong- 793001**
 - b) Bear (the name of package, the specification number, and the words **“DO NOT OPEN BEFORE.....”**)
- 17.3 The inner envelope shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared “late” or “rejected”.
- 17.4 If the outer envelope is not sealed and marked as required by para 17.2, the MSDA will assume no responsibility for the Bid’s misplacement or premature opening.

18.0 DEADLINE FOR SUBMISSION OF BIDS

- 18.1 Bids must be received by the MSDA at the address specified under para 17.2, not later than the time & date mentioned in the Invitation to Bid.
- 18.2 The MSDA may, at its discretion, extend this deadline for the submission of Bids by amending the Bidding Documents, in which case all rights and obligations of the MSDA and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

19.0 LATE BIDS

- 19.1 Any Bid received by the MSDA after the time & date fixed or extended for submission of Bids prescribed by the MSDA, will be rejected and/or returned unopened to the Bidder.

20.0 MODIFICATION AND WITHDRAWAL OF BIDS

- 20.1 The Bidder may modify or withdraw its Bid after the Bid's submission provided that written notice of the modification or withdrawal is received by the MSDA prior to the deadline prescribed for submission of Bids.
- 20.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of clause 17.0
- 21.3 No Bid may be modified subsequent to the deadline for submission of Bids.
- 21.4 No Bid may be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Bid Form. Withdrawal/modification of a Bid during this interval may result in the Bidder's forfeiture of its Bid security.

21.0 INFORMATION REQUIRED WITH THE PROPOSAL

- 21.1 The Bids must clearly indicate the name of the manufacturer, the type of model of each principal item of equipment proposed to be furnished and installed. The Bid should also contain drawings and descriptive materials indicating general dimensions, materials from which the parts are manufactured, principles of operation and the extent of pre-assembly involved. The above information shall be provided by the Bidder in the form of separate sheets, drawings, catalogues, etc. in five copies.
- 21.2 Any bid not containing sufficient descriptive material to describe accurately the equipment proposed, may be treated as incomplete and hence rejected
- 21.3 Standard catalogue pages and other documents of the Bidder may be used in the Bid to provide additional information and data as deemed necessary by the Bidder.
- 21.4 In case of the proposal information contradicts specification requirements; the specification requirements will govern.

BID OPENING AND EVALUATION

22.0 OPENING OF BIDS.

- 22.1 The MSDA will open Bids in the presence of Bidders' representatives (up to 2 persons) who choose to attend at the date and time for opening of bids indicated in the Invitation to Bid, or in case any extension has been given thereto, on the extended bid opening date and time notified to all the Bidders, who have purchased the Bidding Documents. The Bidders' representatives who are present shall sign a register evidencing their attendance.
- 22.2 The Bidders' names, bid prices, modifications, bid withdrawals and the presence or absence of the requisite bid guarantee and such other details as the MSDA, at its discretion, may consider appropriate will be announced at the opening.

23.0 PRELIMINARY EXAMINATION

- 23.1 The MSDA will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the Bids are generally in order.

- 23.2 Arithmetical errors will be rectified on the following basis:

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 total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the Bidder does not accept the correction of the errors as above, his bid will be rejected and the amount of Bid guarantee forfeited.

- 23.3 Bid determined as not substantially responsive will be rejected and may not subsequently be made responsive by the Bidder by correction of the non-conformity.
- 23.4 The MSDA may waive any minor non-conformity or irregularity in a Bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

24.0 COMPARISON OF BIDS

- 24.1 The bids shall be compared on the basis of lump-sum prices (i.e. for supply portion and prices for services to be rendered as quoted by the Bidder) for the entire scope of work as defined in the Bidding Documents.

AWARD OF CONTRACT

25.0 AWARD CRITERIA

- 25.1 The MSDA will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated Bid, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily. The MSDA shall be the sole judge in this regard.

26.0 RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

- 26.1 The MSDA reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the MSDA's action.

27.0 NOTIFICATION OF AWARD

- 27.1, The MSDA will notify the successful Bidder in writing by registered letter or by cable or telex or FAX, to be confirmed in writing by registered letter, that his Bid has been accepted.
- 27.2 The Notification of Award/Letter of Award will constitute the formation of the Contract.
- 27.3 Upon the successful Bidder's furnishing of Contract Performance Guarantee, the MSDA will promptly notify each unsuccessful Bidder and will discharge its earnest money

28.0 SIGNING OF CONTRACT

- 28.1 At the same time as the MSDA notifies the successful Bidder that its bid has been accepted, the MSDA will send the Bidder the detailed Letter of Award, incorporating all agreements between the parties.
- 28.2 Within 15 days of receipt of the detailed Letter of Award, the successful Bidder shall sign and date the same and return it to the MSDA.

28.3 The Bidder will prepare the Contract Agreement as per the proforma enclosed in Annexure ~~III~~ and the same will be signed within 7 (seven) days of notification of Award.

29.0 CONTRACT PERFORMANCE GUARANTEE

29.1 As a Contract Performance Security, the successful Bidder, to whom the work is awarded, shall be required to furnish a Performance Guarantee as per Annexure-IV from a Public Sector Bank or Scheduled Indian Bank in favour of the MSDA. The guarantee amount shall be equal to to fifteen **percent (15%)** of the Contract Price and it shall guarantee the faithful performance of the Contract in accordance with the terms and conditions specified in these documents and specifications. The guarantee shall be valid upto 90 days after the end of Warranty Period.

29.2 The Performance Guarantee shall cover additionally the following guarantees:

- a. The successful Bidder guarantees the successful and satisfactory operation of the equipment furnished under the Contract, as per the specifications and documents.
- b. The successful Bidder further guarantees that the equipment provided and installed by him shall be free from all defects in design, material and workmanship and shall upon written notice from the MSDA fully remedy free of expenses such defects as developed under the normal use of the said equipment within the period of guarantee .

29.3 The Contract Performance Guarantee is intended to secure the performance of the entire contract. However, it is not to be construed as limiting the damages under clause entitled "Equipment Performance Guarantee" in Technical Specifications for LED bulbs (Annexure-I) and damages stipulated in other clauses in the Bidding Documents.

29.4 The successful Bidder, to whom the work is awarded, shall be required to furnish a bank guarantee from a Public Sector Bank or a Schedule Indian Bank in favour of the MSDA. The guarantee amount shall be equal to to fifteen **percent (15%)** and it shall guarantee the faithful performance of the Contract in accordance with the terms and conditions specified in these documents and specifications. The guarantee shall be valid upto 90 days after the end of Warranty Period.

30.0 QUALITY AND WARRANTY

30.1 LED bulbs should confirm to the latest BIS/ international specifications, wherever such specifications are available and applicable. A copy of the test certificate conforming to BIS/ international standards must be submitted.

The warranty will be effective for a period of 1 year form the date of completion of the project.

31.0 Earnest Money Deposit (EMD)

- (i) The Earnest Money Deposit of 2% of the value of offer quoted by the tenderer shall be paid by each tenderer, in the form of crossed Demand Draft drawn in favour of **Senior Electrical Inspector and the State Designated Agency on Energy Conservation.** to be enclosed along with the sealed tender;
- (ii) Any category of tenderers specifically exempted by the Government from the payment of Earnest Money Deposit are not required to make such a deposit provided they enclose copies of documents proving exemption;
- (iii) The Earnest Money Deposit will be refunded to the successful tenderer only after satisfactory completion of the ordered works and on proper fulfillment of contract;
- (iv) In the case of unsuccessful tenderers, the Earnest Money Deposit will be refunded to them within three months of finalizing the tender;
- (v) The Earnest Money Deposit will not carry any interest.

Tenders received without the Earnest Money Deposit other than specified in sub clause (ii) above will be summarily rejected.

32.0 Payment Mode /Terms

The rates for different works record length are as under:-

Sl.No.	Particulars	Percentage	Cumulative
1.	Along with the work order	30%	30%
2.	On receipt of LED bulbs for installation	30%	60%
3.	After installation of LED bulbs including erection of Signboard	40%	100%

**TECHNICAL
SPECIFICATION
FOR LED VILLAGE
CAMPAIGN**

1. GENERAL REQUIREMENTS FOR BOTH HOME LIGHTING AND VILLAGE STREET LIGHTING

- (i) LED lamps of NICHIA/ OSRAM/ SEOUL/ PHILIPS LUMILEDS/ LEDNIUM make shall be used for the purpose.
- (ii) The luminaire casing/housing shall be of Stainless sheet steel SS304 grade or aluminum having high conductivity preferably to grade 5000 or similar to high conductivity heat sink material.
- (iii) The electronic components used shall be as follows:-
 - a) IC (Integrated circuit) shall be of industrial grade or above.
 - b) Metallic film / Paper/Polyester Capacitor shall be rated for a sustained operating temperature of 105°C.
 - d) The resistors shall be preferably made of metal film of adequate rating. The actual rating versus loading shall be by a factor of 3.
 - e) The junction temperature of the Switching devices such as transistors and MOSFETs etc. shall not exceed 125°C (allowing thermal margin of 25 °C).
 - g) The protective cum adhesive coating used on PCBs should be cleared and transparent and should not affect color code of electronic components or the product code of the company.
 - h) The construction of PCBs and the assembly for components for PCBs should be as per IS standards.
 - i) The electronics covered for this equipment shall pass all the tests called for in the above specification. The tenderer shall indicate the deviation or compliance otherwise the offer shall not be considered for evaluation.
 - k) The infrastructure for Quality Assurance facilities as called for in the above specification must be available at the manufacturing facility. In-house testing facility for Quality Assurance should be present. The compliance shall be indicated clearly in the tender itself.
- (iv) The connecting wires used inside the luminaire, shall be low smoke halogen free, fire retardant e-beam cable and fuse protection shall be provided in input side.
- (v) Care shall be taken in the design that there is no water stagnation anywhere. The entire housing shall be dust and water proof having IP65 protection as per IEC 60529.
- (vi) The LED Module(s), Driver gear, etc. shall be designed in such a way so that temperature of heat sink shall not exceed 15 C above the ambient temperature.
- (vi) AH the material used in the luminaire shall be halogen free and fire retardant confirming to UL94.
- (vii) Lumen maintenance of 70% for at least 25000 hours for Interior applications and 35000 hours for exterior applications. Data sheet showing lumen maintenance in the LED shall also be submitted.
- (viii) Annual Maintenance Contract (AMC) of at least three years to be taken from the manufacturer / supplier.

2. TECHNICAL REQUIREMENTS FOR REPLACING A BULB OR CFL WITH LED LAMP :-

Supply Source	180-240 volts. However, condition for voltage fluctuations should be considered and system should be robust enough to withstand such variation in supply source
Total Harmonics Distortion (THD)	Should be less than 15%
Lamp Efficacy	Should not be less than 50 lm/W
Lamp Requirement	The lamp should be similar in shape to the existing incandescent lamp. Higher viewing angle allows more light distribution in a room.
Usage	Continuous
Power Consumption	5W, 6W, 7W & 8W @50 lm/W
Power Factor	Greater than 0.90
Life Expectancy	About 50,000 burning hours at a 35°C ambient temperature with 70% lumen maintenance
Control Circuit	Compatible to LED
Base	E26/27 or B22
Colour Rendering Index	Minimum CRI of 70
Correlated Colour Temperature	4000 -6000K

TECHNICAL REQUIREMENTS OF LED FOR VILLAGE STREET LIGHTING

Supply Source	180 - 240 volt. However, conditions for voltage fluctuations should be considered and the system should be robust enough to withstand such variation in supply source.
Frequency	50 +/- 1 Hz
Luminaire Efficacy	The luminaires should have a system efficacy of greater than 55lm/W
LED requirement	High power LED with correlated color temperature of 4000K or 6500K +/- 300K.
Luminaire technical requirement	The viewing angle of the luminaire shall be 120 x 70 Deg optimized for Street lighting application to achieve the uniformity. The LED luminaire should be suitable for road lighting application and should provide similar lumen output to that of the existing light.
Usage Hours	12 hrs per day
Power Consumption	Preferable 12W, 14W, 16W & 18W@55lm/W. However, wattage may vary depending upon the existing street light.
Power Factor	Greater than 0.95
Life Expectancy	About 50,000 burning hours at a 35°C ambient temperature with 70% lumen maintenance
Colour Rendering Index	Minimum CRI of 75
Control Circuit	Compatible with LED
Construction	Cast Aluminum with Toughened Glass sealed to IP65 with SS Toggles.



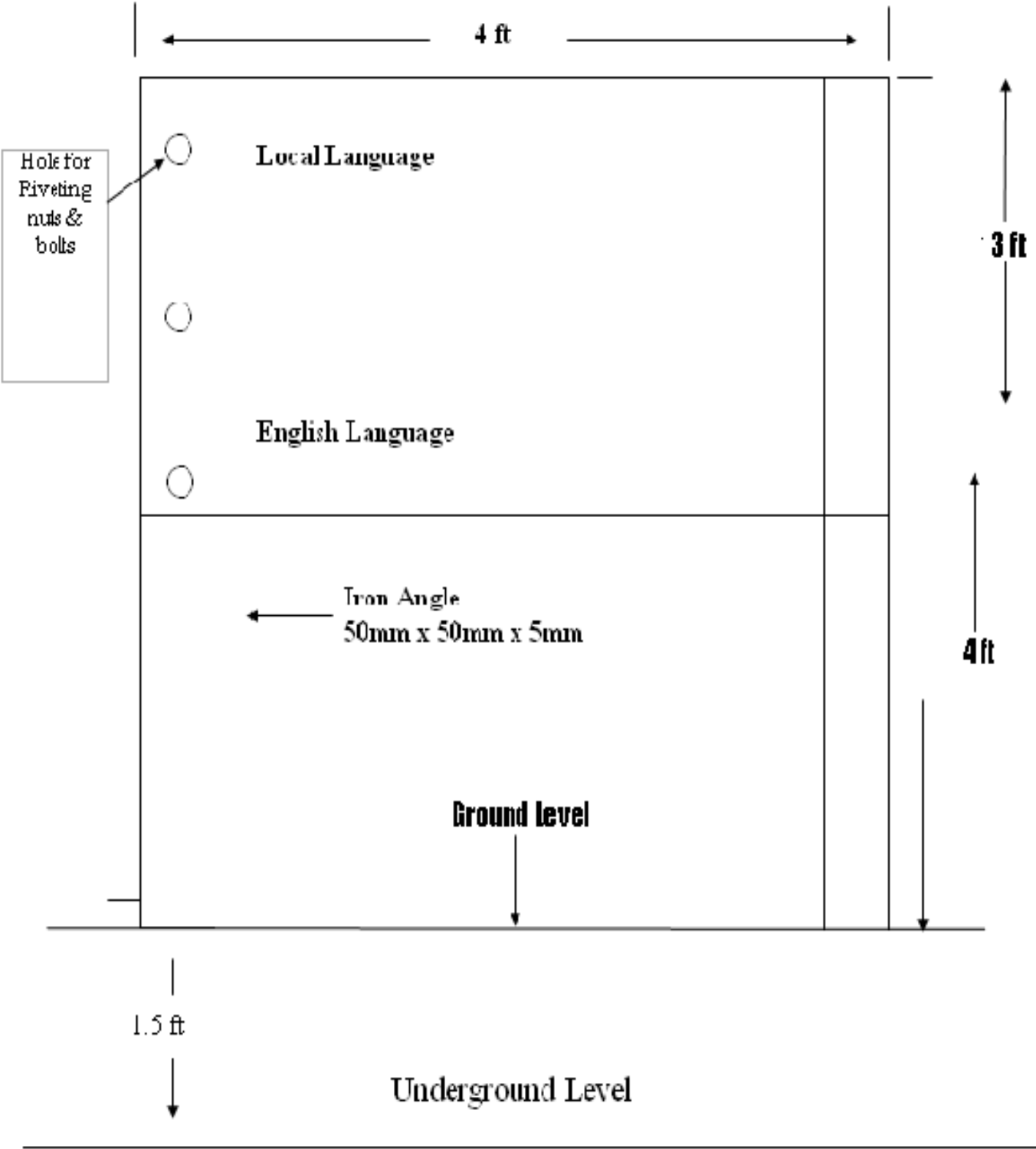
LED village Campaign Demonstration Project for conversion of incandescent lamps with LED bulbs in Mawpynthih Village of East Khasi Hills District, Meghalaya as funded by the Bureau of Energy Efficiency, New Delhi

The project is executed by the Meghalaya State Designated Agency on Energy Conservation located at Horse Shoe Building, Lower Lachumiere, Shillong.

- Energy Consumption before the installation of LED:Kw
- Energy Consumption after the installation of LED:Kwh
- Energy Saved after completion of the Project:Kwh



Annexure-B



ANNEXURE-C

GUARANTEED TECHNICAL PARTICULARS (TO BE SUBMITTED BY THE BIDDER)

S.No.	Parameters	Guaranteed Value
1	LED Operating Current	
2	Output Luminous Flux of luminaire	
3	Beam Angle of luminaire	
4	Avg. Lux Level of luminaire	
5	Uniformity	
6	Photometric Curve	
7	Material of Luminaire & Diffuser	
8	Dimension	
9	Weight	
10	Conformity with IP-65 Fixtures	
11	LED Life	

The General Specification for Signboard as per

Annexure II

The language/ script of the Signboard should be in English and uniform including the color pattern. The sample for the language of the script on the Board is as per Annexure –A

1. GENERAL SPECIFICATION:

Sl.No	Components	Desired specifications
1.	Iron Sheet	MS 16 Gauge (1.6 mm)
2.	Size of Iron Sheet	4x3'
3.	Painting on Board	Dually painted with Enamel paint with base coat of Red Oxide
4.	Painting on Board	Color printing by screen printing method or equivalent
5.	Height of Board from Ground level	4 feet
6.	Height of Board from Ground level	4 feet
7.	Length of the angle to be inserted inside the ground	1.5 feet with 1 feet long hole pass.
8.	Size of the Board	4' x3'

The Plan View of the Signboard is as per Annexure-B



AGREEMENT

This Agreement is made on Between the Meghalaya State Designated Agency on Energy Conservation and M/S.....assigning in the office of the Senior Electrical Inspector, and State Designated Agency on Energy Conservation, Horse Shoe Building, Lower Lachumiere, Meghalaya, Shillong-793001.

AND WHEREAS the Meghalaya State Designated Agency has invited tenderers for this LED Village Campaign in Mawpvnthih Village, East Khasi Hills, Meghalaya, Shillong by replacing the incandescent lamp of 350 household (on the average) with LED bulbs. The signboard is also to be erected after the completion of the LED bulbs fitting to indicate the energy saved as an outcome of this project.

AND WHEREAS the M/s..... had submitted the tender for the said work to the Meghalaya State Designated Agency, Meghalaya, Shillong.

AND WHEREAS the Meghalaya State Designated Agency has accepted the tender of the M/s.....for the execution of the said work on estimated cost of Rs..... (inclusive of all taxes) and the M/s..... is willing to undertake the said work on Contract rates and the terms and condition hereafter appearing.

NOW THEREFORE, THIS AGREEMENT WITNESSES as follows:

The volume of job and terms and conditions of the Contract and financial liabilities are as under:

1. The Job:

The job is for replacing the incandescent lamp of 350 households in the average / with LED bulbs. The Signboard is also to be erected after the completion of the LED bulbs fitting to indicated the energy saved as an outcome of this project.

2. The Department's Responsibility.

The department shall provide all assistance required by the bidder

3.0 The Tenderer's Responsibility.

3.1 Upon being selected the tenderer shall provide the LED bulbs and shall provide trained manpower proportionate to the work load at different points of time.

3.2 The Meghalaya State Designated Agency will have full right to counter check over the activities and would have supervision of the same on regular basis.

3.3 All other terms and conditions as mentioned in the bidding document are strictly binding to be compiled by the Tenderer. The Meghalaya State Designated Agency expects satisfactory completion of the work which will be the sole responsibility of the Tenderer.

PAYMENT MODES / TERMS.

Annexure-III

The rates for different works record length are as under:

Sl.No	Particulars	Percentage	Cumulat ive
1.	Along with the work order	30%	30%
2.	On receipt of LED bulbs for installation	30%	60%
3.	After installation of LED bulbs including erection of Signboard	40%	100%

Service Tax as applicable at the time of invoicing.

PENALTY

As per conditions mentioned in the bidding document.

**IN WITNESS WHEREAS THE M/s.....to
this agreement have at their respective hands and seals in the presence of
the witnesses on date, month and year mention herein above.**

Witnesses:-

For and on behalf of M/s

For and on behalf of Meghalaya

State Designated Agency

1.

1.

.....

.....

.....

.....

2.

2.

.....

.....

.....

.....

**PROFORMA OF BANK GUARANTEE FOR
CONTRACT PERFORMANCE
(To be stamped in accordance with stamp Act)**

Ref.

Bank Guarantee No.

Date

To

**The Senior Electrical Inspector &
State Designated Agency on Energy Conservation
Horse Shoe Building, Lower Lachumiere.,
Meghalaya, Shillong. -793001**

Dear Sirs,

In consideration of Meghalaya State Designated Agency (MSDA) (hereinafter referred to as the 'Owner', which expression shall unless repugnant to the context or meaning there of include its successors, administrators and assigns) having awarded to M/s with its registered/Head office at(hereinafter referred to as 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract by issued of Owner's Letter of Award No.....dated.....and the same having been acknowledged by the Contractor, resulting in a Contract bearing No.datedvalued at Rs(inclusive of taxes) for(scope of contract) and the Contactor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to 15% of the contract price the said value of the Contract to the Owner.

We

(Name & Address)

having its Head Office at.....(hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators , executors and assigns) do hereby guarantee and undertake to pay the Owner, on demand any all monies payable by he Contractor to the extent ofas aforesaid at any time up to.....(days/month/year) without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor.

Any such demand made by the Owner on the bank shall be conclusive and binding notwithstanding any difference between the Owner the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee.

The Owner shall have the fullest liberty without affecting in any way the liability of the Bank under the guarantee, from time to time to extend the time for performance or the Contract by the Contractor. The Owner shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to bear to enforce any covenants, contained or implied, in the Contact between the Owner and the Contractor or any other course or remedy or security available to the Owner. The Bank shall not be released to its obligations under these presents by any exercise by the Owner of its liberty with reference to the matters aforesaid or any of them or by reason of any other act of omission or commission on the part of the Owner or any other indulgences shown by the Owner or by any other matter or thing what so ever which under law would, but for this provision have the effect of relieving the Bank.

The bank also agrees that the Owner at its option shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and not withstanding any security or other guarantee the Owner may have in relation to the Contactor's liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is restricted toand it shall remain in force upto and includingand shall be extended from time to time for such period (not exceeding one year), as may be desired by M/son whose behalf this guarantee has been given.

Dated this.....day of2014 at.....

WITNESS

.....
(Signature)

.....
(Signature)

.....
(Name)

.....
(Name)

.....
(Official Address)

.....
(Designation with Bank Stamp)

Attorney as per
Power Of Attorney No.
Dated

NOTES:

- This sum shall be 15% of the Contract price.
- ** The date will be ninety (90) days after the end of Warranty Period as specified in the Contract.

NOTE: The stamp papers of appropriate value shall be purchase in the name of issuing bank.

**BID PROPOSAL SHEET(SUPPLY)
State Designated Agency**

EXECUTION OF "REPLACEMENT OF EXISTING INCANDESCENT /FLUORESCENT LAMPS BY LED.
(Price Break-up of Ex-works and freight & Insurance Charges)

Bidder's Name & Address:

To

**The Senior Electrical Inspector & State Designated Agency on Energy Conservation
Govt of Meghalaya
Lower Lachumiere
Shillong - 793001
Meghalaya, India.**

Price Break-up for individual items for:

EXECUTION OF "REPLACEMENT OF EXITING INCANDESCENT/FLUORESCENT LAMPS AT MAWPYNTHIH VILLAGE IN EAST KHASI HILLS DISTRICT MEGHALAYA.

(Bidder shall quote prices for the following mentioned items. Prices of all accessories, assemblies, components, parts etc. associated with these items are to be included in Bidder's quoted price for all these items)

(All prices shall be in Indian Rupees)

Sl No.	Description of Items	Unit	Quantity	Unit Ex-Works Price	Total Ex-works Price (6=4x5)	Mode of Transaction Direct or Bought-out Items	Total Taxes & Duties applicable for transaction between Bidder & MSDA and not included in the price at Column (6). (For bought-out items, taxes & duties are invariably included in the price quoted at column-6)			Unit Fright & Insurance Charge	Total Fright & Insurance Charges (12=4x11)	Service Tax, if applicable for Freight & Insurance charges
							Excise Duty	CST Levies	Other			
1	2	3	4	5	6	7	8	9	10	11	12	13
A												
1	LED 8-0 WATTS	NO	1600.00									
2	Sign Board	NO	2									
	GRAND TOTAL											

Date: _____
Place: _____

Signature: _____
Printed Name: _____
Designation: _____

**BID PROPOSAL SHEET / ERECTION / INSTALLATION
STATE DESIGNATED AGENCY
State Designated Agency
EXECUTION OF "REPLACEMENT OF EXISTING INCANDESCENT /FLUORESCENT LAMPS BY LED.**

(Price Break-up of Ex-works and freight & Insurance Charges)

Bidder's Name & Address:

To
The Senior Electrical Inspector & State Designated Agency on Energy Conservation
Govt of Meghalaya
Lower Lauchumiere
Shillong - 793001
Meghalaya, India.

Price Break-up for individual items for:

EXECUTION OF "REPLACEMENT OF EXITING INCANDESCENT/FLUORESCENT LAMPS AT MAWPYNTHIH VILLAGE IN EAST KHASI HILLS DISTRICT MEGHALAYA.

included in Bidder's quoted price for all these items)

SI No.	Description of Items	Unit	Quantity	Unit Erection/installation Charges	Total Erection/installation Charges	Service Tax, if applicable for Erection Charges
1	2	3	4	5	(6=4x5)	7
2	Replacement of existing incandescent /fluorescent lamps by LED' as per Technical Specification	NO	1600			
3	Installation of sign board complete with excavation of foundation, grouting etc.	NO	2			
GRANT TOTAL						

Date: _____
 Place _____
 Place: _____

Signature: _____
 Printed Name: _____
 Designation: _____
 Common Seal: _____