

# **GOVERNMENT OF MEGHALAYA**

**INSPECTORATE OF ELECTRICITY  
OFFICE OF THE SENIOR ELECTRICAL INSPECTOR  
HORSE SHOE BUILDING,  
LOWER LACHUMIERE  
SHILLONG-793001  
&**

**STATE DESIGNATED AGENCY FOR THE STATE OF MEGHALAYA  
UNDER ENERGY CONSERVATION ACT, 2001**



**Request for Quotation (RfQ)/ Bid**

**For**

**Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya**

**(Region II: Garo Hills)**

**Under**

**The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE), New Delhi.**

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# 1 LETTER OF INVITATION

## 1.1 Advertisement/ Tender Notice

**INSPECTORATE OF ELECTRICITY**  
**(The State Designated Agency on EC , Meghalaya of BEE under EC Act 2001)**  
**Government of Meghalaya**

**Request for Quotation (Bid)**

**No. IEL.IX/160/2020-21/75**

**Dated Shillong, the 10<sup>th</sup> of July, 2020**

The senior Electrical Inspector, Govt. of Meghalaya, being the Designated Agency for the State of Meghalaya on Energy Conservation under EC Act 2001, invites quotation to select an agency to conduct “Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II: Garo Hills of Meghalaya under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE), New Delhi”.

<i>Tender Processing Fee</i>	<i>Earnest money deposit (EMD)</i>	<i>Last date for receipt of bid</i>	<i>Time &amp; date of opening of technical bid</i>	<i>Completion time</i>
Rs. 500/- (Rupees Five Hundred only)	Rs. 20,000/- (Rupees Twenty thousand only)	30.07.2020  At 2.00 pm	30.07.2020  At 2.30 pm.	60 Days

The “Request for Quotations” can be purchased from the Office of the undersigned up to 3 pm on 29.07.2020 by payment of **Rs. 500/-** only in the form of Crossed Demand Draft in favor of “Senior Electrical Inspector and State Designated Agency on Energy Conservation, Government of Meghalaya” payable at par in State Bank of India, Main Branch, “Shillong” or can be downloaded from the website [www.msda.nic.in](http://www.msda.nic.in) from 10<sup>th</sup> July, 2020 onwards. For more details on the tender please visit our website [www.msda.nic.in](http://www.msda.nic.in).

Sd/-

Senior Electrical Inspector & Head  
State Designated Agency on Energy Conservation  
Meghalaya, Shillong

## 1.2 Critical Information

Name of the Project	Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya ( Region II: Garo Hills) Under “ The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE), New Delhi”
Tender reference no	<b>IEL.IX/160/2020-21/75</b>
Date of Publishing	<b>Shillong, the 10<sup>th</sup> July 2020</b>
Availability of Bid papers	From 10.07.2020 up to 29.07.2020 between 11:00am and 4:00pm on all working days
Last date & Time for receipt of Queries	29.07.2020 at 4:00pm
Last date & Time for receipt of Bid	30.07.2020 at 2:00pm
Time & date of opening of Technical Bid	30.07.2020 at 2:30pm
Earnest Money Deposit	Rs. 20,000/-
Place of opening of Bid	Office of the Senior Electrical Inspector & State Designated Agency on Energy Conservation, Inspectorate of Electricity, Meghalaya, Shillong, Lower Lachumiere. PIN 793001
submission of Bid	Senior Electrical Inspector & State Designated Agency on Energy Conservation.
Contact Person for queries	Deputy Electrical Inspector & Technical Officer of Meghalaya State Designated Agency
Contact E-mail ID & FAX	<a href="mailto:msda-meg@nic.in">msda-meg@nic.in</a> , Fax-03642500756 Mob.- 8794717665

## 2. BACKGROUND INFORMATION

### 2.1 About the State Designated Agency

The Inspectorate of Electricity came into existence with the inception of the full-fledged State of Meghalaya on 21st January, 1972. It was created primarily for the administration of **the Indian Electricity Act and Rules**. It is technically and administratively manned by the Senior Electrical Inspector and assisted by the Deputy Inspector of Electricity, Assistant Electrical Inspector, Electrical Tester and Ministerial Staff.

The Government of Meghalaya has in its notification vided O.O. No. PE. 14/2002/98-A, dated 22-6-06 under the Energy Conservation Act-2001, has notified the Senior Electrical Inspector as the State Designated Agency for to Coordinate, Regulate & Enforce the provisions of the Act at the State level. On the other side, The Government of India set up Bureau of Energy Efficiency (BEE) on 1st March 2002 under the provisions of the Energy Conservation Act, 2001. The mission of the Bureau of Energy Efficiency, co-coordinating with Designated Consumers (DC), State Designated Agencies (SDA) and other organizations, is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of reducing energy intensity of the Indian economy

## 3. OBJECTIVE OF THE PROJECT

The purpose of the demonstration projects is to showcase the effectiveness of energy efficient device/technology, which will be done in form of replacement of existing luminaries with energy efficient equipment like lights, fans etc.

## 4. SCOPE OF WORK

This Request for Quotation (RfQ) is for Technical & Financial Offers for supply, installation, testing and commissioning of energy efficient equipment like LED, tube lights and energy efficient fans for replacing the existing

inventory at the selected schools of region II of the state of Meghalaya. Region II comprises of schools located at Garo Hills of Meghalaya. The selected bidder needs to get prior approval on the sample energy efficient lights and fans from MSDA before replacement of the old inventory of each school as per the finalized quantities. MSDA will verify and approve the equipment based on its compliance with the technical specification as mentioned in this RFP. On approval of the sample energy efficient equipment from MSDA, the selected bidder needs to carry out the process of supply, installation, testing and commissioning of the energy efficient equipment as per the finalized quantity and quality. If any variation of the installed equipment in the respective schools from the approved sample equipment from MSDA is found during inspection by MSDA officials, the selected bidder will be subjected to face the consequences on the last 25% payment release. After installation of the energy efficient equipment as per this RFQ, a hoarding/display board indicating the name of energy efficient project needs to be installed in each school indicating project name, cost, projected energy saving etc. The bidder needs to seek prior approval from MSDA on the hoarding design and quality before installation. At the end, the selected bidder needs to submit a report indicating the pre and post-installation energy scenario of each school. The report should comprise of different chapters for each schools with actual pictures of pre and post installation of equipment, school premises, installed hoarding/ display board, pre and post installation energy scenario, expected energy savings, recommendations etc. The final chapter of the report should consist of the overall project details like overall energy scenario, project cost, expected energy saving and CO<sub>2</sub> (carbon dioxide) emission reduction that would be achieved through this demonstrating project. The format for the report would be finalized with consultation and approval from MSDA. Project completion will be considered and completion certificate to the bidder will be issued only after acceptance of the submitted final report by MSDA.

#### 4.1. Types and Quantity of Energy Efficient Equipment to be supplied

Sl. No.	Types of Equipment	Quantity* (nos.)
<b>LED BULBS</b>		
01.	9 or 10 Watts or approximate	103
02.	14 or 15 Watts or approximate	245
03.	18 or 20 Watts or approximate	674
<b>LED TUBE LIGHTS</b>		
01.	21 or 22 Watts or approximate	550
02.	30 Watts or approximate	0
<b>BEE ENERGY EFFICIENT FANS</b>		
01.	5 Star Rated Energy Efficient Fans BEE Sweeps 1200mm or above & Service Value $\geq 6.0$ ;	96

\* The actual quantity may vary during course of projects but payment will be done as per pro-rata basis which is subjected to verify and approve by this office.

The locations where these energy efficient appliances needs to be installed are given below

Sl. No.	Name of the School	Location
1	Govt. Girls H.S.S.	Tura, West Garo Hills
2	Govt. Boys H.S.S.	Tura, West Garo Hills
3	Ampati Govt. H.S.S	South West Garo Hills
4	Dalu Govt. H.S.S.	West Garo Hills
5	United Kharkutta Govt. H.S.S.	North Garo Hills
6	Rongrengirri Govt. H.S.S.	Williamnagar, Garo Hills
7	Govt. H.S.S.	Resubelpara, Garo Hills
8	Montford Centre for Education	Danakgre, Araimile, Tura, Garo Hills

## 5. BID DETAILS

### 5.1 Technical Bid Details:

#### 5.1.1 TECHNICAL REQUIREMENT OF 9WATT/10WATT/APPROX. LED BULBS

Sl. No.	Description	Minimum technical parameters
01	Light Source	SMD LED Chip
02	Lamp Wattage	9 or 10 W or approx.
03	CCT	Cool white (5700K to 6500K)
04	Led Chip Wattage	< 1 W
05	Base Cap	B22d (Bayonet Cap)
06	Luminous Flux Efficacy	>= 90 lm/W
07	Power Factor	Min. 0.9
08	Lamp Life Hrs	Min. 50,000 Hrs.
09	Operating Voltage Range	100 V — 300 V
10	Beam Angle	Min: 120 degree
11	CRI (Color Rendering Index)	Min. 80
12	Junction Temp.	Max. 85° C
13	Harmonics	Less than 15%
14	Lumen Maintenance	Min. 70% up to 50,000 hours
15	Working Temp.	-10° C to 40 ° C
16	Surge Voltage	Min. 1.5 kV
17	Preference	Min BEE 3 star rating LED Bulb

#### 5.1.2 TECHNICAL REQUIREMENT OF 14 WATT/15 WATT/APPROX. LED BULBS

Sl. No.	Description	Minimum technical parameters
01	Light Source	SMD LED Chip
02	Lamp Wattage	14 or 15 W or approx.
03	CCT	Cool white (5700K to 6500K)
04	Led Chip Wattage	< 1 W
05	Base Cap	B22d (Bayonet Cap)
06	Luminous Flux Efficacy	>= 95 lm/W
07	Power Factor	Min. 0.9
08	Lamp Life Hrs	Min. 50,000 Hrs.
09	Operating Voltage Range	100 V — 300 V
10	Beam Angle	Min: 120 degree
11	CRI (Color Rendering Index)	Min. 80
12	Junction Temp.	Max. 85° C
13	Harmonics	Less than 15%
14	Lumen Maintenance	Min. 70% up to 50,000 hours

15	Working Temp.	-10° C to 40 ° C
16	Surge Voltage	Min. 1.5 kV
17	Preference	Min BEE 3 star rating LED Bulb

### 5.1.3 TECHNICAL REQUIREMENT OF 20 WATT/21 WATT/APPROX. LED BULBS

Sl. No.	Description	Minimum technical parameters
01	Light Source	SMD LED Chip
02	Lamp Wattage	20 or 21 W or approx.
03	CCT	Cool white (5700K to 6500K)
04	Led Chip Wattage	< 1 W
05	Base Cap	B22d (Bayonet Cap)
06	Luminous Flux Efficacy	>= 100 lm/W
07	Power Factor	Min. 0.9
08	Lamp Life Hrs	Min. 50,000 Hrs.
09	Operating Voltage Range	100 V — 300 V
10	Beam Angle	Min: 120 degree
11	CRI (Color Rendering Index)	Min. 80
12	Junction Temp.	Max. 85° C
13	Harmonics	Less than 15%
14	Lumen Maintenance	Min. 70% up to 50,000 hours
15	Working Temp.	-10° C to 40 ° C
16	Surge Voltage	Min. 1.5 kV
17	Preference	Min BEE 3 star rating LED Bulb

### 5.1.4 TECHNICAL REQUIREMENT OF 21WATT/22WATT or APPROX. LED TUBE LIGHTS (WITH BATTERN)

Sl. No.	Description	Minimum technical parameters
01	Led Fitting Set Type	T8, 4 FEET
02	Total Power Consumption	21/22 WATTS or APPROX.
03	CCT	Cool White (5700K to 6500K)
04	Usage	CONTINUOUS
05	Luminous Flux Efficacy	>= 90 lm/W
06	Power Factor	Min. 0.9
07	Lamp Life Hrs	Min. 50,000 Hrs.
08	Operating Voltage Range	100 V - 240 V
09	Beam Angle	Min: 160 degree
10	CRI (Color Rendering Index)	Min. 80
11	Harmonics	Less than 15%



12	Lumen Maintenance	Min. 70% up to 50,000 hours
13	Working Temp.	-10 to 40 degree Celsius
14	Led Operating Current	< 0.06 A
15	Surge / Spike Protection	>1.5 KV AS PER IEC 61000-4-5.
16	Line Protection	Short Circuit And Over Voltage Protection
17	Driver	Inbuilt Constant Current Based Led Driver
18	Driver Efficiency	>=80%
19	Preference	Min BEE 3 Star Rated LED Tube lights

#### 5.1.5 TECHNICAL REQUIREMENT OF 30WATT or APPROX. LED TUBE LIGHTS

##### (WITH BATTER)

Sl. No.	Description	Minimum technical parameters
01	Led Fitting Set Type	T8, 4 FEET
02	Total Power Consumption	30 WATTS or APPROX.
03	CCT	Cool White (5700K to 6500K)
04	Usage	CONTINUOUS
05	Luminous Flux Efficacy	>= 90 lm/W
06	Power Factor	Min. 0.9
07	Lamp Life Hrs	Min. 50,000 Hrs.
08	Operating Voltage Range	100 V - 240 V
09	Beam Angle	Min: 160 degree
10	CRI (Color Rendering Index)	Min. 80
11	Harmonics	Less than 15%
12	Lumen Maintenance	Min. 70% up to 50,000 hours
13	Working Temp.	-10 to 40 degree Celsius
14	Led Operating Current	< 0.06 A
15	Surge / Spike Protection	>1.5 KV AS PER IEC 61000-4-5.
16	Line Protection	Short Circuit And Over Voltage Protection
17	Driver	Inbuilt Constant Current Based Led Driver
18	Driver Efficiency	>=80%
19	Preference	Min BEE 3 Star Rated LED Tube lights

#### 5.1.5 TECHNICAL REQUIREMENT OF ENERGY EFFICIENT FANS

Sl. No.	Description	Minimum technical parameters
01	Type & Usage	Ceiling Fans & indoor usage

02	Wattage	<= 50 watts15W
03	Voltage range	110-280 V
04	Power factor	0.90
05	No. of Blades	>=3 nos.
06	Blade Sweep size	>=1200 mm
07	Air flow	230 cfm
08	Service Value	>=4.20
09	Speed	340-350 RPM
10	Preference	BEE 5 Star rated Fans
11	Material	Die-cast aluminum

## 5.2 Financial Bid Details:

Financial Bid should be per unit basis and total including all taxes (as applicable), cost of supply, installation, testing, commissioning etc. of energy efficient equipment as per the scope specified in the section 4 of this document.

## 6. GENERAL REQUIREMENTS FOR LED AND LED BASED EQUIPMENT

Following are the BIS criterion for LED and LED based equipment.

1. IS: 513 - Cold-rolled low carbon steel sheets and strips
2. IS 12063- Classification of degree of protections provided by enclosures
3. IS 6873(Part 5) - Limits and methods of measurement of radio disturbance characteristic of electrical lighting and similar equipment.
4. IS 6873 (Part 5) - Equipment for General lighting purposes – EMC immunity requirement.
5. IS 13021 (Part 2)- Performance, AC supplied electronics ballast for tubular fluorescent lamps performance requirement
6. IS 10322 (Part 5/sec 1)- Fixed general purpose luminaries
7. IS 10322 (Part 1) - Luminaries - General requirement and tests.
8. IS 14700 (Part 3/sec2) -Electro Magnetic compatibility (EMC) -Limits for Harmonic current emission – THD <15%.
9. LED of NICHIA/ OSRAM/ SEOUL/ PHILIPS LUMILEDS/ LEDNUIM or other reputed manufactured shall be used in the Luminaries. .
10. 10.The luminaries 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
11. 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<sup>0</sup>C.
  - c) The resistors should be preferably made of metal film of adequate rating. The actual rating versus loading shall be by a factor of 3
  - d) The junction temperature of the switching devices such as transistors an MOSFETs etc. shall not exceed 125<sup>0</sup>C (allowing thermal margin of 25<sup>0</sup>C)
  - e) 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.
  - f) The construction of PCBs and the assembly for components for PCBs should be as per IS standards.

- g) 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.
  - h) 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.
12. The connecting wires used inside the luminaries, shall be low smoke halogen free, fire retardant ebeam cable and fuse protection shall be provided in input side.
  13. 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 60529.
  14. The LED Module(s), Driver gear, etc. shall be designed in such a way so that temperature of heat sink shall not exceed 150<sup>0</sup>C above the ambient temperature.
  15. All the material used in the luminaries shall be halogen free and fire retardant confirming to UL94.
  16. The manufacturer/ supplier should also offer Annual Maintenance Contract (AMC) package(s) for the luminaries for post Warranty period.

All the supplied luminaries shall carry permanent marking as **“NOT FOR SALE- BEE’S LED LIGHTING DEMO PROJECT.”**

## 7. INSTRUCTION TO BIDDING FIRMS

### 7.1 Procedure for Submission of Bid

The Bidders should submit one hard copy of bid and one soft copy in a sealed cover. The bids will be in two envelopes marked ‘A’ and ‘B’. Envelope ‘A’ should contain only technical qualifications as specified and Envelope ‘B’ should have the price bid. Format for price bid is being prescribed and it is expected to be per unit of item to be supplied covering the overall work. Any other form of price bid may become liable for rejection of bid.

The copy of bid should be a complete document and should be bound as a volume. The document should be page numbered an appropriately flagged and contain the list of contents with page numbers. Different copies must be bound separately. The deficiency in documentation may result in the rejection of the bid.

The soft copy of the bid should be submitted, in the form of a non-re-writeable CD (Compact Disc). The CD media must be duly signed by the bidder using a “Permanent Pen/Maker” and should bear the name of the bidder. The sealed cover should be super scribed with the wordings **“ Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II: Garo Hills of Meghalaya”** under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE), New Delhi”.

Bidder must ensure that the information furnished by him/her in respective CDs is identical to that submitted by him/her in the original paper document. In case of any discrepancy observed in the contents of the CDs and original paper documents, the information furnished on original paper document will prevail over the soft copy.

### 7.2 Cost of Bid documents

The Bidder shall bear all costs associated with the preparation and submission of bids, including cost of presentation for the purposes of clarification of the bid, if so desired by SDA Meghalaya. SDA Meghalaya will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

### **7.3 Contents of the Bid documents**

The Bidder is expected to examine all instructions, forms, terms & conditions and statement of work in the bid documents. Failure to furnish all information required or submission of bid document not substantially responsive to the RFQ in every respect will be at the bidder's risk and may result in the rejection of the bid.

### **7.4 Language of Bids**

The bids prepared by the bidder and all correspondence and documents relating to the bids exchanged by the bidder, shall be written in **English language**, provided that any printed literature furnished by the bidder may be written in another language so long the same is accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

### **7.5 Confidentiality**

SDA Meghalaya requires that recipients of this document to maintain its contents in the same confidence as their own confidential information and refrain from any public disclosure whatsoever.

### **7.6 Disclaimer**

SDA Meghalaya and/or its officers, employees disclaim all liability from any loss or damage, whether foreseeable or not, suffered by any person acting on or refraining from acting because of any information including statements, information, forecasts, estimates or projections contained in this document or conduct ancillary to it whether or not the loss or damage arises in connection with any omission, negligence, default, lack of care or misrepresentation on the part of SDA Meghalaya and/or any of its officers, employees.

### **7.7 Authorized Signatory (Bidder)**

The "Bidder" as used in the RFQ shall mean the one who has signed the bid document forms. The bidder should be the duly Authorized Representative of the Company/firm. Company/firm may form consortium with other firm (not more than one firm) in the form of joint venture/partnership/subcontractor etc but it should be clearly indicated whether the RFQ is submitted as Joint Venture or otherwise and a copy of MOU in this regard, indicating the details must be submitted. All certificates and documents (including any clarifications sought and any subsequent correspondences) received thereby, shall, as far as possible, be furnished and signed by the Authorized Representative. The power of authorization (On company letter head/ stamp paper), or any other document consisting of adequate proof of the ability of the signatory to bind the Bidder shall be annexed to the bid in case of a tenderer not being a Government body/undertaking/PSU. SDA Meghalaya may reject outright any proposal not supported by adequate proof of the signatory's authority.

### **7.8 Contact details of the Bidder**

Bidder, who wants to receive SDA Meghalaya's response to queries, should give their contact details to SDA. The Bidder should send their contact details in writing the SDA Meghalaya's contact address indicated in Para 1.2 of this document.

### **7.9 Queries on the Bid Document**

Bidder requiring any clarification on this Document may send a query in writing at the SDA Meghalaya's contact address indicated in Para 1.2 of this document. SDA Meghalaya's response (including an explanation of the query) to all the queries, received not later than the dates prescribed by the SDA Meghalaya in Para 1.2 of this document, will be made available and sent to the Bidders who have given their contact details. SDA Meghalaya may also hold a conference to give clarifications and invitation of the same will be sent to the Bidders who have given their contact details.

### **7.10 Amendment of Bid document**

At any time prior to the last date for receipt of bids, SDA Meghalaya, may, for any reason, whether at its own initiative or in response to a clarification requested by prospective Bidder(s) modify the Bid Document by an amendment. In order to provide prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, SDA Meghalaya may, at its discretion, extend the last date for the receipt of Bids and/or make other changes in the requirements set out in the Invitation for Bid.

## 7.11 Bid Processing Fees

All bids must be accompanied by a bid processing fee of **Rs. 500/-** (Rupees Five Hundred Only) and cost of Bid document amounting **Rs. 500/-** (Rupees Five Hundred Only) (*in case of the Bid document downloaded from SDA's website, bid document fee is not required*) in the form of crossed Demand Draft(s) drawn in favor of the SENIOR ELECTRICAL INSPECTOR AND STATE DESIGNATED AGENCY ON ENERGY CONSERVATION, GOVERNMENT OF MEGHALAYA and payable at par in SHILLONG.

## 7.12 Earnest Money Deposit (EMD)

- i. The Earnest Money amounting to Rs. 20,000/- (Rupees Twenty thousand only) shall be paid by each bidders, in the form of crossed Demand Draft drawn in favor of the SENIOR ELECTRICAL INSPECTOR AND STATE DESIGNATED AGENCY ON ENERGY CONSERVATION, GOVERNMENT OF MEGHALAYA and payable at par in SHILLONG, to be enclosed along with the sealed tender;
- ii. Any category of bidders 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 bidder only after satisfactory completion of the ordered works and on proper fulfillment of contract;
- iv. In case of unsuccessful bidder, 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.
- vi. Tenders received without the Earnest Money Deposit other than specified in Sub-clause (ii) above will be summarily rejected.

## 8. PRE-QUALIFICATION CRITERIA

Bidder should have electrical contractor's license registered in the state of Meghalaya and should have at least one electrical supervisor who will be authorized to supervise the aforesaid work. Further, the bidder should employ minimum four persons holding electrical workman permit of the state of Meghalaya to carry out the aforesaid work.

## 9. TIMELINE AND DELEVERABLES

### 9.1 Broad Timeline

The broad timeline for the demo Project is as under:

Issue of order	Commencement of Supply	Expected completion date
By the SDA	Within 10 days of receipt of order from SDA Meghalaya.	Within 60 days from the date of commencement of works.

### 9.2 Payment Schedule & Penalty/Damages for Delay in Delivery

- a) 75% of the payment shall be released against receipt of material on pro-data basis.
- b) 10% of the payment shall be released on installation of material at site on pro-rata basis and hoarding/display board.
- c) 10% of the payment shall be released after complete testing & commissioning and handing over the installation to the department. Also, the final report as mentioned in the scope of this RfQ need to be submitted before release of this 10% payment.
- d) Remaining 5% shall be released upon receipt of performance guarantee valid up to warranty period.
- e) Applicable taxes as deductible at source will be deducted from the bill amount.

- f) If the firm fails to deliver the ordered material/equipment within the stipulated period of delivery, SDA Meghalaya may cancel the relevant supply order and in the event of SDA Meghalaya allowing the firm to carry on with the supply works upon such delay, penalty fee at the rate of 1% of the cost of incomplete delivery per week shall be deducted from the payment already due to the firm or the Earnest Money Deposit, as the case may be, subject to the condition that such penalty shall not exceed the total cost of undelivered portion of supply.

No living accommodation for the staff of manufacturer/agency shall be provided by the SDA Meghalaya. Carriage of material to SDA Meghalaya's office shall be the responsibility of the firm at their own cost.

### 9.3 Documents Comprising the Bid

The proposal prepared by the Bidder shall comprise the following components:

- i. Bid Form 1 : Bid Letter Proforma (refer Para 10.1)
- ii. Bid Form 2 : Comments and Suggestions (refer Para10.2)
- iii. Bid Form 3 : Format for confirmation of pre-qualification criteria (refer Para 10.3)
- iv. Bid Form 4 : Technical Bid (refer Para 10.4)
- v. Bid Form 5: Financial Bid (refer Para 10.5)
- vi. Bid processing fee of Rs. 5000/- (Rupees Five Hundred only).
- vii. Earnest Money Deposit of Rs. 20,000/-(Rupees Twenty thousand only) (refer Para 10.12)
- viii. In case of a bidder not being a Government body/undertaking/PSU, registered Power of Attorney executed by the Bidder in favour of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this Bid.
- ix. Memorandum of Understanding (MoU)/Agreement (On company letter head/ stamp paper) clearly indicating their relationship. (In case of subcontractors/JV/partnership etc) (On company letter head/ stamp paper)

SDA shall not be responsible for non-receipt/non-delivery of the Bid due to any reason whatsoever. Bidders are advised to study the Bid document carefully. Submission of Bid shall be deemed to have been done after careful study and examination of the Bid document with full understanding of its implications.

### 9.4 Liquidated Damages

Should the supplier firm fail to complete the supply work within the period prescribed for, SDA Meghalaya shall be entitled to recover 50% of the Earnest Money Deposit on expiry of the first week of delay and the rest 50% of the Earnest Money Deposit on expiry of the second week of delay. **Quantum of liquidated damages as assessed for realization by SDA Meghalaya shall be final and not challengeable by the supplier firm.**

### 9.5 Test certificates and instruction book etc.

The supplier firm shall furnish to SDA Meghalaya the following documents along with the consignment- printed pamphlets /catalogues: 2 Copies for each item. The supplier firm shall furnish the relevant Test Certificates complying ordered specifications along with consignment of material.

### 9.6 Guarantee/Warranty/Maintenance/Service

All supplied items shall be **guaranteed for a period of 5 years** from the date of handing over the ordered items to SDA Meghalaya against unsatisfactory performance and/or break down due to defective design, workmanship of material. The items or components, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of SDA Meghalaya. The manufacturer/supplier should also offer Annual Maintenance Contract (AMC) package(s) for the luminaries for post Warranty period.

## 9.7 Jurisdiction

All legal proceedings in connection with this contract shall be subject to the territorial jurisdiction of local civil courts at the Shillong only.

## 9.8 Preliminary Scrutiny

Preliminary scrutiny of the proposal will be made to determine whether they are complete, whether required process fee has been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Proposals not conforming to such preliminary requirements will be prima facie rejected.

## 9.9 Technical evaluation

The Technical Evaluation of Pre-qualified Bidders shall be carried out to achieve the objective of assignment as detailed in the Terms of Reference the bidders will outline their methodology in their proposals giving a brief description of methods that they intend to adopt to achieve this objective. The evaluation of the proposals shall be carried out in two stages: Firstly the quality, and then the cost. The financial proposals shall be opened only after the technical proposals have been evaluated and concluded. "Financial Bid" of only technically qualified bidders shall be opened.

## 9.10 Evaluation of Proposals

The proposals will be evaluated on the basis of the prescribed specifications. However, SDA Meghalaya in its sole/absolute discretion can apply whatever criteria deemed appropriate in determining the responsiveness of the Bid submitted by the bidders.

The technical bid of all the participating firms will be opened on 30.07.2020 at 2:30pm in order to cross check if all the required documents like technical bid, financial bid, bid processing fee, earnest money deposit etc are submitted as per the RfQ in presence of the participating bidders.

Thereafter, MSDA officials would carry out the technical evaluation of the submitted bids and verify whether all the participating firms technically qualify the requirement as per the RfQ. On finalization of the technically qualified bidders, MSDA would fix a date for opening of the price bid and invitation will be sent to all the technically qualified bidders along with the tender opening committee. A Minimum of three technical qualified bidders needs to shortlisted in order to call for the meeting of financial bid opening and open the price bids. **Price bid will be opened only for the technically qualified bidders and the contract will be awarded to the lowest price bidder.**

## 9.11 Force Majeure

If, at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts or act of God (hereinafter referred to as events) provided notice of happenings of any such eventuality is given by either party to the other within 5 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such an event come to an end or cease to exist, and the decision of SDA Meghalaya as to whether the deliveries have been so resumed or not shall be final and conclusive. Further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reasons of any such event for a period exceeding 30 days, either party may, at its option, terminate the contract.

## 10 BID FORMS

Bid is to be submitted in the following format along with the necessary documents as listed. The Bid shall be liable for rejection in the absence of requisite supporting documents.

### 10.1 Bid Form 1: Bid Letter Proforma

(Letter on official letter head stating the following)

To

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

Sub: Request for Quotation (Bid) For **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** (Region II: Garo Hills) Under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi.

Ref: RFQ No.....

Sir,

The undersigned Bidders, having read and examined in detail all the Bid documents in respect of appointment of a supplier for SDA Meghalaya, do hereby express their interest to **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi for the State Designated Agency, Meghalaya as specified in the scope of work.

#### 1. Correspondence Details

Our correspondence details are:

1	Name of the Bidder	
2	Address of the Bidder	
3	Name of the contact person to whom all references shall be made regarding this tender	
4	Designation of the person to whom all reference shall be made regarding this tender	
5	Address of the person to whom all references shall be made regarding this tender	



6	PAN No.	
7	GSTIN No.	
8	Electrical Contractor License No.	
	Electrical Supervisors License No.	
	Workman Permit No.	
9	Telephone (with STD code)/Mobile No.	
10	Name & E-Mail of the contact person	

## 2. Document forming part of Bid

Part-A & Part- B of the tender comprise the following documents:

### A) We have enclosed herewith the followings as Technical Bid in envelop 'A' (Tick)

- a) **Bid form-1** Forwarding letter
- b) **Bid form-2** Comments and Suggestion
- c) **Bid form-3** Format for Confirmation of Pre-qualification Criteria
- d) **Bid form-4** Technical Bid
- e) Photocopy of partnership deed in case of partnership firm/Joint Venture/Consortium
- f) Detail of order issued and past experience against supply made to different State/Central Govt. Departments/Agencies and photocopies of certificate of satisfactory performance(if available)
- g) Test certificates (if any)
- h) Bid processing fee: **Rs. 500/-** only in the form of Crossed Demand draft in favour of "Senior Electrical Inspector an State Designated Agency on Energy Conservation, Government of Meghalaya" payable at par in State Bank of India, Main Branch, "Shillong", if bidder downloads the tender document or copy of the received from SDA Meghalaya.
- i) **Earnest Money Deposit** of Rs. 20,000/- (Rupees Twenty thousand Only)/ letter issued by Government for exemption of EMD (refer Para 7.12)
- j) Registered Power of Attorney executed by the Bidder in favor of the Principal Officer or the duly Authorized Representative, certifying him/her as an authorized signatory for the purpose of this bid. (In case of a bidder not being a Government body/undertaking/PSU).
- k) Photocopy of the following pre-qualification criteria
  - Electrical Contractor license
  - Electrical Supervisors license along with the undertaking of work
  - Workman Permit along with the undertaking of work
  - Photocopy of Work order/ Completion report of at least one similar work project in the State

- 1) Memorandum of Understanding (MoU)/Agreement (On company letter head/ stamp paper) clearly indicating their relationship for submitting this bid document. (Applicable in case of subcontractors/JV/partnership etc) (On company letter head/ stamp paper) (Optional).

**B) We have enclosed herewith the following as Financial Bid in envelop ‘B’.**

- a) **Bid Form 5:** Financial Bid

**3. Declaration**

- a) We have read and understood the terms & conditions of the above mentioned tender and comply to all Terms & Conditions of your Tender.(In case of any deviation the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation thereto).
- b) We certify that the information mentioned above are true and correct to best of our knowledge.
- c) In case of receipt of order we confirm that payment shall be received through Cheque /Electronics Transfer.
- d) This offer contains \_\_\_\_\_No. of pages including all Annexure and Enclosures.

We hereby declare that our Bid is made in good faith and the information contained therein is true and correct to the best of our knowledge and belief.

Thanking you.

Yours faithfully

(Signature of the Bidder)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

Witness:\_\_\_\_\_

Bidder:\_\_\_\_\_

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

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

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

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

Address:\_\_\_\_\_

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

\_\_\_\_\_

Company/Firm:\_\_\_\_\_

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

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

**10.2 Bid Form 2: Comments and Suggestions**

[Suggest and justify here any modifications or improvement to the scope of work, tasks to be performed, timeline, deliverables, payment terms etc. to improve performance in carrying out the Assignment. The Bidder can suggest deleting some activity or adding another, or proposing a different phasing of the activities. Such suggestions should be concise and to the point.]

### 10.3 Bid Form 3: Format for Confirmation of Pre-qualification Criteria.

(Declaration Letter on official letter head stating the following)

To

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

Sub: **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** (Region II: Garo Hills) Under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi.

Having examined the tender document of RFQ No. \_\_\_\_\_, we hereby confirm the following (please tick whichever is applicable) towards the minimum eligibility condition to participate in then tender for Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya (Region II: Garo Hills) Under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi.

- i. We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract
- ii. We are not black-listed by any Central/State Government/Public Sector Undertaking in India.
- iii. Details of similar work / order executed during last 5 years (Please submit copy of work order/ completion certificate from the client.)\*

Description of the Work/Order executed	Name of the Client	Start Date	Finish Date

\*At least one similar work should be executed in the state of Meghalaya.

Witness:

Bidder:

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

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

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

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

Address: \_\_\_\_\_

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

\_\_\_\_\_

Company/Firm: \_\_\_\_\_

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

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

### 10.4 Bid Form 4: Technical Bid

(On official letter head)

To

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

Sub: Technical Bid for **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** (Region II: Garo Hills) Under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi.

Sir,

The undersigned Bidders, having read and examined in detail all the Bid documents in respect of appointment of a supplier for SDA Meghalaya, do hereby express their interest to **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi for the State Designated Agency, Meghalaya as specified in the scope of work.

**Name of the schools and address for supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya**

Sl. No.	Name of the School	Location
1	Govt. Girls H.S.S.	Tura, West Garo Hills
2	Govt. Boys H.S.S.	Tura, West Garo Hills
3	Ampati Govt. H.S.S	South West Garo Hills
4	Dalu Govt. H.S.S.	West Garo Hills
5	United Kharkutta Govt. H.S.S.	North Garo Hills
6	Rongrengirri Govt. H.S.S.	Williamnagar, Garo Hills
7	Govt. H.S.S.	Resubelpara, Garo Hills
8	Montford Centre for Education	Danakgre, Araimile, Tura, Garo Hills

#### TECHNICAL REQUIREMENT OF 9WATT/10WATT/APPROX. LED BULBS

Sl. No.	Description	Minimum technical parameters
01	Light Source	SMD LED Chip
02	Lamp Wattage	9 or 10 W or approx.
03	CCT	Cool white (5700K to 6500K)
04	Led Chip Wattage	< 1 W
05	Base Cap	B22d (Bayonet Cap)
06	Luminous Flux Efficacy	>= 90 lm/W
07	Power Factor	Min. 0.9
08	Lamp Life Hrs	Min. 50,000 Hrs.
09	Operating Voltage Range	100 V — 300 V
10	Beam Angle	Min: 120 degree
11	CRI (Color Rendering Index)	Min. 80
12	Junction Temp.	Max. 85° C
13	Harmonics	Less than 15%
14	Lumen Maintenance	Min. 70% up to 50,000 hours
15	Working Temp.	-10° C to 40 ° C
16	Surge Voltage	Min. 1.5 kV
17	Preference	Min BEE 3 star rating LED Bulb

**TECHNICAL REQUIREMENT OF 14 WATT/15 WATT/APPROX. LED BULBS**

Sl. No.	Description	Minimum technical parameters
01	Light Source	SMD LED Chip
02	Lamp Wattage	14 or 15 W or approx.
03	CCT	Cool white (5700K to 6500K)
04	Led Chip Wattage	< 1 W
05	Base Cap	B22d (Bayonet Cap)
06	Luminous Flux Efficacy	>= 95 lm/W
07	Power Factor	Min. 0.9
08	Lamp Life Hrs	Min. 50,000 Hrs.
09	Operating Voltage Range	100 V — 300 V
10	Beam Angle	Min: 120 degree
11	CRI (Color Rendering Index)	Min. 80
12	Junction Temp.	Max. 85° C
13	Harmonics	Less than 15%
14	Lumen Maintenance	Min. 70% up to 50,000 hours
15	Working Temp.	-10° C to 40 ° C
16	Surge Voltage	Min. 1.5 kV
17	Preference	Min BEE 3 star rating LED Bulb

**TECHNICAL REQUIREMENT OF 20 WATT/21 WATT/APPROX. LED BULBS**

Sl. No.	Description	Minimum technical parameters
01	Light Source	SMD LED Chip
02	Lamp Wattage	20 or 21 W or approx.
03	CCT	Cool white (5700K to 6500K)
04	Led Chip Wattage	< 1 W
05	Base Cap	B22d (Bayonet Cap)
06	Luminous Flux Efficacy	>= 100 lm/W
07	Power Factor	Min. 0.9
08	Lamp Life Hrs	Min. 50,000 Hrs.
09	Operating Voltage Range	100 V — 300 V
10	Beam Angle	Min: 120 degree
11	CRI (Color Rendering Index)	Min. 80
12	Junction Temp.	Max. 85° C
13	Harmonics	Less than 15%
14	Lumen Maintenance	Min. 70% up to 50,000 hours
15	Working Temp.	-10° C to 40 ° C
16	Surge Voltage	Min. 1.5 kV
17	Preference	Min BEE 3 star rating LED Bulb

**TECHNICAL REQUIREMENT OF 21WATT/22WATT or APPROX. LED TUBE LIGHTS  
(WITH BATTERN)**

Sl. No.	Description	Minimum technical parameters
01	Led Fitting Set Type	T8, 4 FEET
02	Total Power Consumption	21/22 WATTS or APPROX.
03	CCT	Cool White (5700K to 6500K)
04	Usage	CONTINUOUS
05	Luminous Flux Efficacy	>= 90 lm/W
06	Power Factor	Min. 0.9
07	Lamp Life Hrs	Min. 50,000 Hrs.
08	Operating Voltage Range	100 V - 240 V
09	Beam Angle	Min: 160 degree
10	CRI (Color Rendering Index)	Min. 80
11	Harmonics	Less than 15%
12	Lumen Maintenance	Min. 70% up to 50,000 hours
13	Working Temp.	-10 to 40 degree Celsius
14	Led Operating Current	< 0.06 A
15	Surge / Spike Protection	>1.5 KV AS PER IEC 61000-4-5.
16	Line Protection	Short Circuit And Over Voltage Protection
17	Driver	Inbuilt Constant Current Based Led Driver
18	Driver Efficiency	>=80%
19	Preference	Min BEE 3 Star Rated LED Tube lights

**TECHNICAL REQUIREMENT OF 30WATT or APPROX. LED TUBE LIGHTS  
(WITH BATTERN)**

Sl. No.	Description	Minimum technical parameters
01	Led Fitting Set Type	T8, 4 FEET
02	Total Power Consumption	30 WATTS or APPROX.
03	CCT	Cool White (5700K to 6500K)
04	Usage	CONTINUOUS
05	Luminous Flux Efficacy	>= 90 lm/W
06	Power Factor	Min. 0.9
07	Lamp Life Hrs	Min. 50,000 Hrs.
08	Operating Voltage Range	100 V - 240 V
09	Beam Angle	Min: 160 degree
10	CRI (Color Rendering Index)	Min. 80
11	Harmonics	Less than 15%
12	Lumen Maintenance	Min. 70% up to 50,000 hours
13	Working Temp.	-10 to 40 degree Celsius

14	Led Operating Current	< 0.06 A
15	Surge / Spike Protection	>1.5 KV AS PER IEC 61000-4-5.
16	Line Protection	Short Circuit And Over Voltage Protection
17	Driver	Inbuilt Constant Current Based Led Driver
18	Driver Efficiency	>=80%
19	Preference	Min BEE 3 Star Rated LED Tube lights

#### TECHNICAL REQUIREMENT ENERGY EFFICIENT FANS

Sl. No.	Description	Minimum technical parameters
01	Type & Usage	Ceiling Fans & indoor usage
02	Wattage	<= 50 watts 15W
03	Voltage range	110-280 V
04	Power factor	0.90
05	No. of Blades	>=3 nos.
06	Blade Sweep size	>=1200 mm
07	Air flow	230 cfm
08	Service Value	>=4.20
09	Speed	340-350 RPM
10	Preference	BEE 5 Star rated Fans
11	Material	Die-cast aluminum

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

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

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

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

Address: \_\_\_\_\_

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

\_\_\_\_\_

Company/Firm: \_\_\_\_\_

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

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

## 10.5 Bid Form 5: Financial Bid

To

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

Sub: Financial bid for **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** (Region II: Garo Hills) Under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi.

Sir,

The undersigned Bidders, having read and examined in detail all the Bid documents in respect of appointment of a supplier for SDA Meghalaya, do hereby express their interest to **Supply, installation, testing and commissioning of the energy efficient equipment for replacing existing inventory of the few selected schools of Region II of Meghalaya** (Region II: Garo Hills) Under “The Demonstration Project on Energy Efficiency of the Bureau of Energy Efficiency (BEE)”, New Delhi for the State Designated Agency, Meghalaya as specified in the scope of work.

Sl. No.	Name of the Energy Efficient Appliances	Wattage	Make/ Model	Amount per unit** (inclusive of taxes) in Rupees.	Quantity in nos.	Total Amount (Inclusive of taxes) in Rupees.	
						In Figures.	In Words
1	LED Bulb (18-21 Watts or approx.)				674		
2	LED Bulb (14-15 Watts or approx.)				245		
3	LED Bulb (9-10 Watts or approx.)				103		
4	LED Tube lights (>=30Watts or approx.)				0		
5	LED Tube lights (21-22 Watts or approx.)				550		
6	BEE 5 star rated EE fans				96		
7	Cost of Hoarding/ display board				8		
GRAND TOTAL						GRAND TOTAL	
In Words.....only/-						In Figure.....	

*\*\*The per unit price against each item should be inclusive of all costs like cost of transportation, supply, installation, commissioning, testing, taxes, initial survey, report preparation etc. No other extra cost will be applicable or considered other than the cost mentioned above. However, the total final cost during project completion may vary as per the actual qualities of EE appliances collected during initial survey and will be considered on pro-data basis.*



In case of any difference of amount in figures and words, the amount in words will be considered

Witness:

Bidder:

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

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

Address: \_\_\_\_\_

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

\_\_\_\_\_

Company/Firm: \_\_\_\_\_

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

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