Empanelment and Rate Contract of suppliers for Solar Urja Lamp (SOUL) Kit



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

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Sealed Tenders are invited by the Joint Registrar (MM), Indian Institute of Technology Bombay, Powai, Mumbai- 400 076, for the Rate Contract of Solar Urja Lamp Kit. Non transferable tender forms containing terms and conditions can be downloaded from our website www.iitb.ac.in/en/tenders/active and submit EMD along with the form of Demand Draft or Bank Guarantee in favour of "The Registrar, IIT Bombay" payable at Mumbai. The Tender No. & brief description of the item is given below:

Section 1 - Invitation of Bids

Tender No	MMD/ESE/SOUL/KIT/L/2019-20
Tender Date	03 rd April 2019
Advt No.	MMD – 24/18-19
Item Description:	Empanelment and Rate Contract for Solar Urja Lamp (SOUL) Kit
Pre-bid Meeting Date & Time	22 nd April 2019 @ 11.00 am
Pre-bid Meeting Place :	Materials Management Division,IIT Bombay Powai, Mumbai – 400 076.
Last date & time of submission of tender:	2 nd May 2019 at 1.00 p.m.
Place of Submission Bids :	Materials Management Division, Ground floor, Main Bldg, Indian Institute of Technology Bombay, Powai, Mumbai-76
Tender Type:	Two Bid System: The two bid system will be followed for this tender. In this system bidder must submit their offer in separate sealed envelopes as –Technical Bid and Commercial Bid. Both the Technical Bid and Commercial Bid envelopes should be clearly marked as "Envelope No. 1 - Technical Bid" and "Envelope No. 2 – Commercial Bid" and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed with our Tender No. & Due Date and to be submitted to the concern department/section mentioned in tender document.
Opening Date & Time of tender	2 nd May 2019 at 3.00 p.m.
Place of opening Tender	Materials Management Division, Ground floor, Main Bldg, Indian Institute of Technology Bombay, Powai, Mumbai- 400 076.
Earnest Money Deposit	Earnest Money Deposit of Rs. 30,00,000/-(Rs. Thirty Lakhs Only) in the form of Bank Guarantee

	or in the form of Demand Draft in favour of "The Registrar, IIT Bombay" payable at Mumbai to be submitted in technical bid.
Technical Clarification	Name: Prof. C.S. Solanki Dept: Dept. of Energy Sci. &Engg. Email: chetanss@iitb.ac.in
Any other Clarification	Name: Joint Registrar (MM) Dept.: Materials Management Division Email: drmm@iitb.ac.in Contact No.: 022-2576 8800
Signing Authority	
	Joint Registrar (MM)

Introduction

Context

Today, the world is on the crossroads of the energy contradiction, wherein, on one hand, there are billions who do not have access to energy and on the other hand use of energy is resulting in climate change. According to the International Energy Agency (IEA) Report, more than 1 billion people lack access to electricity while over 2.8 billion people lack access to clean cooking. As per the IPCC report of Oct. 2018, we need to have a "rapid and far-reaching" transition in energy usage. For mitigating climate change, there is an urgency to reduce the carbon emissions, and the world has to become net carbon zero by the year 2050, an extremely difficult task to achieve. In case the world fails to mitigate climate change, the global temperature is expected to rise up to 5°C by the end of this century in business as usual scenario, in which condition human existence itself will come under threat.

SoULS Initiative

At Indian Institute of Technology (IIT) Bombay through its Solar Urja through Localization for Sustainability (SoULS, www.soulsiitb.in) initiative has been working on the facilitating localized solar solutions involving local communities in assembly, distribution, repair and maintenance, and even manufacturing of the solar products. These localized solar solutions can be a solution to both the issues of energy access as well as the mitigating the climate change. Through this SoULS Initiative, over 5 million families have benefitted through Solar Urja lamp project and more than 9,000 local people, particularly women, have earned some income through technology-based livelihoods. The SoULS Initiative is currently being implemented in 10 Indian states, covering the most marginalized families living in geographically isolated and remote areas. In addition, the initiative also helps local to open solar marts and even set up manufacturing units. The SoULS initiative has been working to develop open source hardware for solar based products. It has also developed solar PV based cooking solutions. Overall SoULS imitative has been working to provide 24x7 solar energy solutions by locals for locals.

• The Idea of Energy Swaraj

In the backdrop of energy access and climate change, an idea of "Energy Swaraj" or localized energy self-sufficiency has been conceptualized. Solar energy is infinite and use of solar energy to fulfil ALL our energy needs locally through the local operations of assembly, manufacturing, installation and maintenance, as much as possible, is energy swaraj. It is a condition of localized energy self-sufficiency, it is localized self-reliance of energy. In order to propagate Energy Swaraj, Gandhi Global Solar Yatra (GGSY, www.ggsy.in) is planned not only in India but across the globe. The young generation, who will bear the maximum burden of climate change, has to be an integral part of this clean energy revolution. A workshop on 2nd Oct. 2019 is being organized across the globe to make millions of people, especially students, a Students Solar Ambassadors.

Student Solar Ambassador workshop, 2nd Oct. 2019

The Student Solar Ambassador Workshop, the seed concept of the Gandhi Global Solar Yatra, aimed to sensitize the young (future) generations who will be bearing the maximum burden of climate change. Their sensitization and participation as solar ambassadors in climate mitigation efforts are important. Therefore, a workshop to train students and sensitize them towards solar energy is being organized on 2nd October 2019, marking the 150th birth anniversary of Mahatma Gandhi, who epitomized the cause of non-violence (principles). This will be a megaglobal event, wherein more than 1 million students from over 180 countries will get hands-on training to assemble their own solar study lamp. The workshop is expected to happen in at least 10,000 locations. 2nd Oct. 2019 is marked as 150th birth anniversary of Mahatma Gandhi, which is also celebrated as the International Day of Non-Violence. All the Students Solar Ambassador on 2nd Oct. will also take a pledge of Non-Violence towards Environment. A similar workshop was also organized by IIT Bombay (Guinness World Record event) on 2nd Oct. 2018 across India wherein more than 1.30 lakh students from 857 schools assembled their own solar study lamps.

Target

The target of Student Solar Ambassador workshop of 2nd Oct. 2019 is to conduct hands-on training for **2.5 million** students in India and about **0.5 million students** outside India.

Section 2 - Eligibility Criteria

The bidder should provide the following relevant documents, failing which their applications shall be summarily rejected:

- 1. The bidder has to be operational for last three years in India (Copy of Certificate of Incorporation / Registration of firm to be enclosed).
- 2. The bidder should provide **PAN CARD** of the firm. (copy to be enclosed).
- 3. The bidder should provide Valid GST Registration Certificate (copy to be enclosed).
- 4. The bidder must not be blacklisted / Suspended or any service related dispute with any Organization / Govt org/ PSU /Private Sector inside India or out side India. Declaration to be submitted as per **Annexure A1**.
- 5. The Bidder's should accept Tender Terms & Condition **Annexure A2.**
- 6. The Bidder should submit filled Income Tax Return acknowledgment for last two years i.e. A.Y.2017-2018 (F.Y. 2016-17) & A.Y.2018-2019 (F.Y. 2017-18) Annexure A3.
- 7. Duly filed Bidder's Information **Annexure A4.**
- 8. The Organization should have produced and sold more than 10,000 solar LED lamps copy of (purchase orders to be enclosed) **Annexure A5.**

Section 3 - Instructions to Bidders

A) Submission of Tenders:

- 1. Tender should be submitted on the schedule with your covering letter in the enclosed form duly signed. Your quotation must be submitted in two envelopes Technical Bid and Commercial Bid superscribing on both the envelopes the tender no. and the due date and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed with our Tender No. & Due Date.
- 2. The Bid should be dropped in the tender box kept in the office of concerned Department / Section mentioned in the tender. No tender is to be handed over to our staff personally unless otherwise specified. All communications are to be addressed to the undersigned only. In case due date happens to be holiday the bid will be accepted and opened on the next working day.
- 3. The bid can be submitted in person or through post/ courier (IIT Bombay shall not be responsible for any postal delays or any other reason for not submitting the bid in the specified time and resulting in disqualification / rejection of any bid) so as to reach on or before the due date and time.
- 4. The leaflets catalogue, etc. should be sent invariably so that a proper evaluation of the solar items offered is possible.

B) COST OF BIDDING:

 The Bidder shall bear all costs associated with the preparation and submission of its Bid and the Purchaser shall not be responsible or liable for those costs regardless of the conduct or outcome of the bidding process.

C) VALIDITY OF THE BID:

1. 180 Days from the date of submission of bid.

D) AMENDMENT OF BIDDING DOCUMENTS:

- At any time prior to the deadline for submission of bids, IIT Bombay may, for any reason, whether on its own initiative or in response to the clarification request by a prospective BIDDER may modify the bid document.
- 2 All prospective BIDDER's who have downloaded the bidding document may visit IIT Bombay website for amendments / modifications which will be binding on them.

E) DEADLINE FOR SUBMISSION OF BIDS:

 Bids must be received by IIT Bombay before the due date and time at the address specified in the tender document. In the event of the specified date for the submission of bids being declared as a holiday for IIT Bombay the bidclosing deadline will stand extended to the next working day up to the same time.

F) BID OPENING PROCESS:

- 1. In two envelope cover bid system, the Technical Bid will be opened in the first instance in the presence of representatives of the bidders at IIT Bombay.
- 2. Financial bids of only those bidders, whose bids are found technically qualified, by the Technical Evaluation Committee, will be opened in the presence of the vendor's representatives subsequently at later date for further evaluation.
- 3. One authorized representative of each of the bidder would be permitted to be present at the time of aforementioned opening of the bids.
- 4. The authorized representatives of bidders, present at the time of opening of the bids shall be required to sign an attendance register as a proof of having attended the bid opening meetings.

G) LATE BIDS:

- 1. IIT Bombay will not be responsible:
 - a. For delayed / late quotations submitted / sent by post / courier etc.
 - b. For submission / delivery of quotations at wrong places other than the mentioned in the tender.
 - c. Any bid inadvertently received by IIT Bombay after the deadline i.e. due date & time for submission of bids, will not be accepted and returned.
 - d. Fax / E-mail / Telegraphic / Telex tenders will not be considered.

H) SUPPLEMENTARY OFFER /MODIFICATION OF ORIGINAL BID:

Tender submitted against Notice Inviting Tender (NIT) shall not be returned in case the tender opening date is extended / postponed. Bidder desirous to modify their offer / terms may submit their revised / supplementary offer (s) within the extended Tender Opening Date (TOD) by clearly stating to the extend of updation done to the original bid. The purchaser reserves the right to open the original offer alongwith the revised bid (I).

I) CONFIDENTIALITY:

- Information relating to the evaluation of bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.
- Notwithstanding, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it shall do so in writing.

J) EVALUATION OF BID:

- 1. IIT Bombay evaluate technical and commercial acceptable offers on landed net Price basis.
- 2. In case any BIDDER is silent on any clauses mentioned in this tender documents, IIT Bombay shall construe that the BIDDER has accepted the clauses as per the invitation to tender and no further claim will be entertained.
- 3. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
- 4. Qualified bidders have to submit samples for inspection.

K) COMMERCIAL BID:

- Quoting of Price (s): Price quoted should be in Indian Rupees for Commercial Bid-I
- 2. For Transportation cost relevant currency to be quoted.
- 3. COMMERCIAL BID must be submitted in enclosed Price Bid Form only. If the price is not quoted in Price Bid Form only provided in tender document then, IIT Bombay will reject bid.
- 4. Tender will be taken as exclusive of all Taxes. Taxes to be mentioned separately in Taxes column.
- If supplier wish to give pricing details it may be attached in separate sheet.

L) TRANSFER AND SUBLETTING:

1. The seller shall not sublet, transfer, assign or otherwise part with the acceptance to the tender or any part thereof, either directly or indirectly, without the prior written permission of the Purchaser.

M) CANCELLATION OF TENDER:

- 1. Not withstanding anything specified in this tender document, Purchaser / IIT Bombay in his sole discretion, unconditionally and without assigning any reasons, reserves the rights: MMD, IIT Bombay
 - a) To accept OR reject lowest tender or any other tender or all the tenders.
 - b) To accept any tender in full or in part.
 - c) To reject the tender offer not confirming to the tenders terms.
- 2. To give purchase preference to Public Sector undertakings when applicable as per Govt. Policy/Guidelines.
- 3. Offer which deviates from the vital conditions (as illustrates below) of the tender shall be rejected:
 - a) Non-submission of complete offers.
 - b) Receipt of offers after due date and time and or by email / fax (unless specified otherwise).
 - c) Receipt of offers in open conditions.4.Conditional Tenders and Unsigned Tenders will also be rejected

Section 4 – Terms and Conditions

A) Award of Contract:

- 1. A panel of vendors / suppliers will be selected. Among technically qualified vendors, the lowest rate of the kit received (i.e. L-1) will be taken as the "Approved Price". Other technically qualified vendors with L1+20% will be offered a chance to match the 'Approved Price', all vendors who match the 'Approved price' will be empanelled as suppliers.
- 2. All other allied expenditure, handling materials & transportation cost will be borne by the Vendor.
- Commercial Bid -II is for transportation of kit to various countries and cities of India.
- 4. Countrywise and Citywise L1 of transportation cost will be determined and orders will be placed accordingly to the suppliers matching L1 rates of transportation and approved price.
- 5. The Empaneled suppliers will abide by all the Terms & Conditions of the Tender Document.
- 6. The Performance of the empanelled supplier's will be reviewed by committee during contract period and IITB reserve right to add or delete suppliers in rate contract based on performance. Performance of the supplier will be evaluated based on (i) the supplier's ability to supply the complete dispatch order quantity in the given time, and (ii) the number of defective components in any consignment/ order is within the given percentage.

B) Earnest Money Deposit & Performance Bank Guarantee :

- 1. Quotations exclusively submitted in the enclosed performa will only be considered. However, it should be sent along with a covering letter and Bank Guarantee of Rs. 30,00,000/- (Rupees Thirty Lakhs only)as Earnest Money Deposit as per enclosed.
- 2. Earnest Money Deposit will be returned to the unsuccessful vendors within 30 days after the award of the contract.
- EMD of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or derogates from the tender in any respect within the period of validity of its tender.
- 4. Further, if the successful tenderer fails to furnish the required performance security within the specified period, its EMD will be forfeited.
- 5. We reserve the full right to reject any offer without assigning any reason.
- 6. IIT Bombay reserves the right to add more suppliers during the rate contract if necessary and the rate contract vendors should have no objection on the same.
- We may remove or add any vendor during the contract.
- 8. Any Vendor currently engaged in litigation with other Organizations, must inform their status in writing.

9. Performance Guarantee Bond is mandatory.

- Successful tenderer/ bidder should submit performance guarantee as prescribed above to be received in the office of Deputy Registrar, Materials Management Division on or before 30 days from the date of issue of Rate contract copy. The performance guarantee bond to be furnished in the form of Bank Guarantee as per proforma or annexure of the tender documents, for an amount of Rs.1.5 cores.
- 11. The Performance Guarantee Should be established in favor of "REGISTRAR IIT Bombay" through any Bank Situated at Mumbai or Outstation with a clause to enforced the same on their local branch at Mumbai.
- 12. Performance Guarantee Bond shall be for the due and faithfully performance of the contract and shall remain binding, notwithstanding such variations, alterations for extensions of time as may be made, given, conceded or agreed to between the successful tenderer and the purchaser under the terms and conditions of acceptance to tender.
- The successful tenderer is entirely responsible for due performance of the contract in all respects according to the speed, intent and meaning of the terms and conditions and specification and all other documents referred to in the acceptance of tender.
- The performance guarantee bond shall be kept valid during the period of contract and shall continue to be enforceable for a <u>period of one year from the date of order acknowledgment or upto warranty period whichever is later.</u>

C) Terms of Payments :

- 1. 100% Payment within 30 days after delivery and acceptance of the material.
- 2. GST extra as applicable.
- 3. Price should be valid for at least One year from the date on which Rate Contract is entered into.
- 4. In the event of any dispute over this contract, IIT Bombay's decision shall be final and binding.

D) Quantity ordered and Delivery Schedule

Quantity order – The order for SoUL kits will be placed in the multiples of 25 kits, as per the project requirements. One Purchase Order (PO) will not exceed 100,000 kits. The minimum number of kits to be bought through this tender is 50 thousand which may be increased up to 3 lakh lamp kits.

For every 25 lamp kits, 1 toolkit will be supplied by the vendor. The list of the toolkit components is as follows:

Toolkit Components include:	Qty per kit
Multimeter	1

Soldering Iron 25 Watt (Bevel Tip)	1
Soldering Iron.Stand	1
Soldering Wire S.W.G 22/20	1
Screw Driver	5
Adhesive (cyano-acrylyte) 5gm	5

E) Order delivery locations:

- 50 Thousand to 1 Lakh SoUL kits will be sent to multiple Indian Embassies globally. 1 location per country for around 180 countries 500 Lamp kits (inclusive of 20 toolkits) will be supplied to every Indian Embassy which has accepted the invitation and will be taking part in the event.
- ii. 1.5 Lakh to 2 Lakh Lamp kits will be supplied to special schools within India.
- iii. There is no guarantee of minimum order for a selected rate contract. Actual order quantity for each vendor will depend on quantity and quality of supply, timely delivery and capacity of supplier.

F) Order Lead Time –

For a given PO, multiple delivery locations with different quantity and delivery date can be given.

The time of delivery of order to the specified location should not be more than 15 days from the scheduled delivery date.

G) Penalty clause for delay – In case of delay beyond contractual delivery date, penalty will be applicable at 2.5% per week of the basic order value.

H) Location of delivery -

The kits have to be delivered as per requirement across the globe to several countries and to all districts in India.

I) Delivery Location

The SoUL kits, along with spare components, toolkits, warranty cards, operation manual, etc will be delivered across the globe to several countries and to all districts in India.

IMPORTANT NOTE: Specific locations in different countries and within India will be available after the vendor is selected.

- **J) Delivery Timing** The consignment of SoUL kits must reach the destination on working days, between 9:00am 5:00pm.
- K) Missing components, Physical and technical defective components All missing, physical and technical defective components, as and when identified and

notified through due inspection process at the delivered location has to be replaced by the vendor within 15 working days. The number of missing, physical and technical defective components (all put together) in any consignment of an order delivered at any location should not exceed given percentage of 1% for any single component. If the number of such components exceeds 1%, **penalty will be applicable at 2.5% per week of the basic order value.**

- **L) Mode of Transport -** The mode of transport is at vendor's discretion.
- **M) Packaging-** The consignment packaging should be as per the specifications mentioned at the time of placing the order.
- N) Spare Components Spare components shall be made available to carry out replacement activities during the workshop. The spare components will be provided free of cost by the vendors along with the SoUL kit. The proportionate spare components as listed in the table below will be delivered by the vendors as per instructions from IIT Bombay. Additional spares ,if any, as specified during the course of the project must be made available to permit uninterrupted service of lamps. The spares and the replacements of defective components should be done within 15 working days of reporting the defect. The cost of spares and replacements which includes all cost freight and taxes to be borne by the vendor.

All the components provided as spare parts should be packed separately and supplied to specified locations, as and when intimated by IIT Bombay.

Name of the lamp kit component	No. of Spare Parts for every 25 kits delivered
Base bottom	2
Base top	2
LED Cap	2
Reflector	2
LED face	2
Gooseneck	2
Switch cap	5
Screws	5*3 screws - Small 5*4 screws - Big
Battery	2
PCB	2
Load LED	2

Solar Panel	2
Load Wire	2
Packaging Boxes (Lamp and Panel)	2

(For example: for supply of each 25 batteries, 2 additional batteries as spare parts should be supplied)

O) Warranties and Guarantees

- Solar Module: Minimum 5 years warranty from the date of Delivery to the respective location.
- 2. Batteries: Minimum 5 year warranty from the date of Delivery (however as per the technical specification battery is expected to work for minimum 1000 cycles).
- 3. Electronic accessories (PCB, Switch, Socket, LED, wires): Minimum 1.5 year warranty from the date Delivery to the respective location.
- 4. Any physical damaged or technical defects to SOUL kit/components as and when identified through due inspection process at the delivered location has to be collected and replaced by the vendor within 10 working days with all cost including freight and taxes borne by the vendor.

IMPORTANT NOTE: Warranty and guarantee not applicable to physically damaged SOUL kit during assembly process and usage.

Section 5 – Scope of Work and Technical Specification

For execution of "Student Solar Ambassador Workshop" across the globe, the scope of work for the vendor would be following: (NOTE: Vendors meeting the selection criteria will be submitting technical and commercial bids for SoUL kit supplies. Selected vendors will be based on meeting the requirements laid down by IIT Bombay will enter into rate contract with IIT Bombay)Procurement or manufacturing of SoUL components as per technical specifications mentioned in the contract

- 1 Testing of SoUL kit components, as per technical specifications mentioned in the contract
- 2. Liaison with IIT Bombay staff for inspection at the work site of lamp components
- 3. Packaging and labeling of SoUL kits as per IIT Bombay's requirement
- 4. Delivery of SoUL kits to the specified locations across the globe as and when mentioned in order placed by IIT Bombay.
- 5. Provide proportionate spare components for repair and maintenance along with the order of SoUL kit supply in a separate packing
- 6. Carry out replacement of faulty SoUL kit components during warranty period in liason with IIT Bombay
- 7. Complete the delivery of kits/spares/replacements within specified time period
- 8. Provide prototype of five SoUL kits (assembled) and five SoUL kits (disassembled form).

Technical Specifications Of Solar Urja Lamp Kit

- **1.** The disassembled kit is divided in five parts which include following:
 - 1. Solar PV module
 - 2. Battery
 - 3. PCB with components, load wire and LED
 - 4. Lamp body with goose neck and screws
 - 5. Packaging
- There should be a provision to print logos or text on the SoUL and its packaging box as per requirement. The supplier should not have his or her own logo on the lamp or on the box.

TECHNICAL SPECIFICATION OF SOLAR URJA LAMP (SoUL) KIT

1. Specification of PV module

Cell Type	Mono or Polycrystalline Silicon solar cells
	Module should be manufactured in India
Lamination	Toughened glass cover and EVA sheets
Module Frame	Ultra High Impact Polystyrene (Jet Black Colour)
No. of Solar Cells in the Panel	10 cells - Solar module to satisfy the technical specifications provided in tender doc. & the same will be tested at the time of proto-type submission for testing at IITB.
Max. Power rating	$V_{mp} \times I_{mp} \geq 2.5 W_p$
Voltage at maximum power point	≥ 5 V
Connecting cable –Type	PVC Dual Sheated, 2 Core, 0.25sqmm (Each conductor) Copper Cable
Connecting cable – Length	3.5 Mtrs
Electrical Data*(Nominal):	Under STC
Warranty:	Minimum 5 Years from the date of delivery

Supplier should put logo of SSA as per design provided by IIT bombay.

(years) mentioned. The above mentioned details should be in readable form to all.

Supplier should print their company name on Panel .The panel front should include Vendor name, SSA Logo, text "Made in India", Quality check sticker before Lamination. The back of the panel should have printed the technical specifications with manufacturing month and expiry month/warranty (years) mentioned before Lamination. The above mentioned details should be in readable form to all. The logo design shall be provided to the empanelled supplier.

2. Specification of Battery

Battery chemistry type	Rechargeable LFP (LiFePO ₄) battery	
Nominal Operating Voltage	3.2 V (minimum 2000 mAh) measured at Standard	
	condition	
Temperature	10°C to 50°C	
Battery casing	22650	
Minimum Number of charge-discharge cycles	2000	
DoD	Up to 85-90%	
Warranty	Minimum 5 year from the date of delivery	
Vendor should print their company name on the battery with manufacturing month and expiry month/warranty		

3. Specification of Circuit and LED

Circuit		
Dimension		Refer www.openhardware.soulsiitb.in
Reverse current protecti	on	To be included
Short Circuit Protection		To be included
Battery upper voltage cut-off		3.6± 0.1 V
Battery lower voltage cu	ıt-off	3± 0.1 V
LED driver type		Constant current
Driving Current	Mode 1	40 mA
	Mode 2	130 mA @150 Lux
Stand by/Leakage current		< 1 mA
	Red	ON @ low voltage = 3 V
Indication	Constant	Blinking while charging
	Green	ON @ fully charged = 3.6 V
Circuit Efficiency		80-85%
Warranty		Minimum 1.5 year from the date of delivery
Vendor should print company name on Circuit with manufacturing month and expiry month/warranty (years)		

Vendor should print company name on Circuit with manufacturing month and expiry month/warranty (years) mentioned. The above mentioned details should be in readable form to all.

LED		
Technology		White Light Emitting Diode (W-LED)
Operating Voltage		6.3 V
Power Consumpti	on (Pmax)	≤ 1.5 Watt (Max)
Illuminance	Mode 1	Minimum 50 Lux when measured at the periphery of
		the 45 cm diameter from height of 30 cm.
	Mode 2	Minimum 150 Lux when measured at the periphery of
	Mode 2	the 45 cm diameter from height of 30 cm.
Luminous perforn	nance of LED (Efficacy)	Minimum 150 Lumen per Watt
Operating Temper	ature	30°C to 85°C
Color rendering a	nd appearance	CCT: between 5700K to 6500K
Warranty		Minimum 5 year from the date of delivery
Polarity marking (+/-) and solder tinning should be mentioned on the LED plate. The above mentioned details		
should be in readable form to all.		

4. Specification of lamp body and screws

GENERAL	
Design	Refer <u>www.openhardware.soulsiitb.in</u> Annexure-1
Lantern housing material	1) SoUL Lamp Body:

	Material: ABS (Matte Finish) Color: Yellow-CM 606 (Reference by Bhansali Engineering Polymers) 2) Transparent LED Cover: Material: Poly Carbonate with matte finish of 20 mm Dia circle to be provided on the transparent cover, central axis of this circle should pass through the center of LED. Color: Transparent Water Color 3) Plastic Plate to cover LED (Reflector): Material: ABS (Gloss Finish)
	Color: IFB White / Parker White
Ingress Protection (IP)	IP 33 Special protection is required for preventing dust entering from the switch or through any other part into the body of the lamp.
Lamp look	As per the design provided by IITB in Annexure -1
Operating manual in 3 languages (for beneficiary)	1 per SoUL kit (5-6) folded A4 size colour printed 100 GSM paper). The artwork will be provided to selected bidders by IITB.
Screws and Gooseneck	1 3344613 03 11111
Size	Refer www.openhardware.soulsiitb.in

5. Specification of Packaging

Maximum size of Lamp packaging box	Lamp Box –(140mm x 120mm x 110mm)), Panel Box
	- (150mm x 215mm)). The size provided is for
	reference.
	(There will be 2 packaging box. One for assembled
	lamp and one for panel)
Packaging material	3 ply cardboard box
Printing on package	High quality colour printing (4 colors) on Package
	should be possible. 1 SSA Logo(Size L(25 mm) x b
	(20 mm)) and text to be Printed on both boxes. The
	artwork will be provided by IITB to final bidders.
Polythene Cover	1 per SoUL Kit
	1 per SoUL kit (5-6 folded A4 size colour printed 100
Operating Manual	GSM paper). The artwork will be provided to selected
	bidders by IITB.
	1per SoUL kit (Size L (25 mm) x b (20 mm)). The
SSA Logo	details will be provided to selected bidders by IITB.
Mother box(Delivery Boxes)	Quality colour printing (3 colors) on package should
Packaging material	be possible. Printing of contents of box on boxes
	should be possible. The detailed artwork and colour
	format will be provided by IITB to final bidders. The
	Boxes should be horizontal.
	The Size of box is upon the discretion of vendor. The

Box should accommodate 25 kits in following
manner:
Box A: Solar Panel
Box B All components except panel
Box C: Packaging Boxes
Box D: Screws, Manual, stickers, logos, extra kits,
etc.

Note:

Vendor should supply some additional free spare components along with ordered components.

Spare Components - Spare components shall be made available to carry out replacement activities during the workshop. The spare components will be provided free of cost by the vendors along with the SoUL kit. The proportionate spare components as listed in the table below will be delivered by the vendors as per instructions from IIT Bombay. Additional spares, if any, as specified during the course of the project must be made available to permit uninterrupted service of lamps.

All the components provided as spare parts should be packed separately and supplied to specified locations, as and when intimated by IIT Bombay.

Name of the lamp kit component	No. of Spare Parts for every 25 kits delivered
Base bottom	2
Base top	2
LED Cap	2
Reflector	2
LED face	2
Gooseneck	2
Switch cap	5
Screws	5*3 screws - Small 5*4 screws - Big
Battery	2
PCB	2
Load LED	2

Solar Panel	2
Load Wire	2
Packaging Boxes (Lamp	
and Panel)	2

(For example: for supply of each 25 batteries, 2 additional batteries as spare parts should be supplied)

TECHNICAL SPECIFICATION OF TOOLKITS

No	Items Name	Quantity	Reference Brand Names	Specifications	<u>Use</u>
1	Multimeter		DT 830D Digital multimeter	Basic dc accuracy 0.5%, AC/DC Voltage 0-1000V, AC/DC Current of 0-10A and Resistance 0-2M, 3 digit auto ranging digital multimeter with LCD display, Single rotary switch operation, Diode and continuity test with buzzer, Small lightweight design for one-handed use, Rugged, durable design, Battery should easy to replace.	To measure the AC/DC Voltage, AC/DC Current and wire Continuity.
2	Soldering Iron	1	Soldron	25Watt, Bevel Tip	To solder the wire electrical components
	Soldering Iron Stand	1	GEC	Compatible to keep the above soldering iron	Holder for soldering iron
4	Solder Metal Wire	1	Tripp Gold	S.W.G. 20/22, (40 grams)[Used in electrical and electronics solder parts like circuit board electronics devices and others.
5	Screw Driver	5	TAPARIA- 803	2 in 1 type Screw driver with Tip Dimension — 3*0.5mm. The blade is made from high grade Silicon - Manganese steel The blade tip is magnetized to lift small screw etc. from confined spaces or to hold the screw in position	Assembling the Lamp Kit of SoUL lamp and PCB with Lamp kit.
6.	Adhesive		Anabond /Tiger bond/Tuff bond/bond king	5gms	Used to connect the gooseneck with lamp body

Note: Vendor should be able to supply one toolkit along with 25nos solar lamp kits. Toolkit components are listed below. Toolkit can be supplied in plain white 3-ply cardboard box with the SSA logo.

Terms and Conditions:

- 1. The participating organizations will be both National and International (other than India).
- 2. 1 toolkit for every 25 lamp kits should be supplied by the vendor, along with the material.
- 3. Pre-dispatch inspections will be carried out by IIT Bombay.
- 4. All the material for the respective organizations will be delivered by the vendor and the shipping and delivery of the material will be end to end delivery.
- 5. Price bid will be generated for end to end delivery of the material for respective countries. A list of all the countries along with capital cities is attached for the same.

Quantity ordered and Delivery locations

Quantity order – The order for SoUL kits will be placed in the multiples of 25 kits, as per the project requirements. For every 25 lamp kits, 1 toolkit will be supplied by the vendor. The list of the toolkit components is as follows:

Toolkit Components include:	Qty per kit
Multimeter	1
Soldering Iron 25 Watt (Bevel Tip)	1
Soldering Iron.Stand	1
Soldering Wire S.W.G 22/20	1
Screw Driver	5
Adhesive (cyano-acrylyte) 5gm	5

Testing will be done of the following components:

Components	Parameters	Comments
Solar Lamp Kit	Make of components	
	Lamp housing material	
General (including Lamp	Ingress Protection	
Body)	Portability	
	Physical condition	
	Make	
	Colour rendering and	
	appearance	
	Light appearance	
Limbt Emitting Diado/LED	Light distribution	
Light Emitting Diode(LED)	Operating Voltage	
	Power Consumption (P max)	
	Illuminance	
	Luminous performance of LED	
	Operating Temperature	
	Battery chemistry type	
	Make	
	Nominal Operating Voltage	
Energy Storage System	(D.C.)	
	Battery capacity (mAh)	
	DoD	
	Connectivity	

	Physical condition
	Make
	Cell Type
	Max. Power rating
Solar Panel	Connecting cable length
	Maximum module Area
	Electrical Data*(Voc, Isc, Wp,
	Imp, Vmp):
	Physical condition
	Operating Voltage(D.C):
	- PV module point
	- Battery Point
	- LED point
Printed Circuit Board (PCB)	- Switch point
Timed Circuit Board (1 CB)	Physical Condition
	Connectivity/ soldering points
	Indications for battery charge
	Indicator LED
	Physical condition
Switch	Number
	Connectivity
Wires	Number
wiies	Connectivity
Screws	Number
COLGANG	Physical condition

Socket	Number	
	Physical condition	
	Connectivity	
Spare Components	Number	
	Technical check	
	Physical Condition	

One set of following must be supplied to IITB within 15 days for inspection, if vendor is selected as rate contract:

- Operating manual for user of SoUL in 5 languages (English, Hindi, Spanish, French and Portuguese) at the time of placing the order to selected vendors.
- 2. Printing and labeling on boxes

Technical Bid Deliverables

- 1. Solar module specifications
- 2. LED specifications
- 3. Battery specifications
- 4. Solar lamp output specifications (LUX level, operating hours at two specified light levels)
- 5. 10 prototypes (includes 5 assembled SOUL and 5 disassembled SOUL (SOUL Kit))
- 6. Documents as proof for eligibility criteria
- 7. Any other details related to lamp

(NOTE: Provide technical specifications as per Component Testing and Inspection Table)

Order delivery locations:

SoUL kits will be procured by various organizations directly through GeM portal (Govt. Organizations) or by Direct Purchase (other organizations). The rate of the lamp kits as fixed by the rate contract will be applicable to both the above mentioned purchase.

тіхе	d by the rate contract will	be applicable to both the ab	ove mentioned purchase.
ı	Country	Delivery city	
1	Albania	Tirana	
2	Andorra	Andorra la Vella	
3	Angola	Luanda	
4	Antigua and Barbuda	Saint John's	
5	Australia	Canberra	
6	Bahamas	Nassau	
7	Barbados	Bridgetown	
8	Benin	Porto-Novo	
9	Bolivia	Sucre (de jure), La Paz	
10	Burkina Faso	Ouagadougou	
11	Burundi	Gitega	
12	Cabo Verde	Praia	
13	Cameroon	Yaounde	
14	Central African Republic	Bangui	
15	Chad	N'Djamena	
16	Comoros	Moroni	
17	Congo, Republic of the	Brazzaville	
18	Costa Rica	San Jose	
19	Djibouti	Djibouti (city)	
20	Dominica	Roseau	
21	Dominican Republic	Santo Domingo	
22	Ecuador	Quito	
23	El Salvador	San Salvador	
24	Equatorial Guinea	Malabo (de jure), Oyala (seat of government)	
25	Eritrea	Asmara	
26	Estonia	Tallinn	
27	Eswatini (formerly Swaziland)	Mbabane (administrative), Lobamba (legislative, royal)	

28	Gabon	Libreville
29	Gambia	Banjul
30	Georgia	Tbilisi
31	Grenada	Saint George's
32	Guinea	Conakry
33	Guinea-Bissau	Bissau
34	Haiti	Port-au-Prince
35	Honduras	Tegucigalpa
36	India	New Delhi
37	Kazakhstan	Astana
38	Kenya	Nairobi
39	Kiribati	Tarawa
40	Kosovo	Pristina
41	Kuwait	Kuwait City
42	Kyrgyzstan	Bishkek
43	Laos	Vientiane
44	Latvia	Riga
45	Lebanon	Beirut
46	Lesotho	Maseru
47	Liberia	Monrovia
48	Libya	Tripoli
49	Liechtenstein	Vaduz
50	Lithuania	Vilnius
51	Luxembourg	Luxembourg (city)
52	Marshall Islands	Majuro
53	Mauritania	Nouakchott
54	Moldova	Chisinau
55	Monaco	Monaco
56	Mongolia	Ulaanbaatar
57	Montenegro	Podgorica
58	Nauru	Yaren District (de facto)
59	Nicaragua	Managua
60	Niger	Niamey
61	North Korea	Pyongyang
62	Pakistan	Islamabad
63	Palau	Ngerulmud
64	Paraguay	Asunción
65	Rwanda	Kigali
66	Saint Kitts and Nevis	Basseterre
67	Saint Lucia	Castries

	Coint Vincent and the		
68	Saint Vincent and the Grenadines	Kingstown	
69	Samoa	Apia	
70	San Marino	San Marino	
71	Sao Tome and Principe	São Tomé	
72	Sierra Leone	Freetown	
73	olomon Islands	Honiara	
74	Somalia	Mogadishu	
75	South Korea	Seoul	
76	Taiwan	Taipei	
77	Timor-Leste	Dili	
78	Togo	Lomé	
79	Tonga	Nuku'alofa	
80	Tuvalu	Funafuti	
81	Uruguay	Montevideo	
82	Vanuatu	Port Vila	
83	Vatican City (Holy See)	Vatican City	
	Country Name	Delivery City	address
1	Afghanistan	Kabul	Malalai Watt, Shahre-Nau Kabul Afghanistan
2	Algeria	Val d`Hydra	17, domaine CHEKIKEN (Chemin de la Madeleine), Val d'Hydra, Algiers
3	Angola	Luanda	Rua Commandante Nzaji, No. 47 Alvalade Luanda Angola
4	Argentina	Buenos Aires	Torre Madero, 19th Floor Avenida Eduardo Madero, 942 Buenos Aires - C1106ACW
5	Armenia	Yerevan	Embassy of India Yerevan, 50/2, India Street, Yerevan- 0015, Armenia.
6	Austria	Vienna	Kärntnerring 2 (2nd Floor) 1010 Vienna, Austria
7	Azerbaijan	Baku	302 Jeyhun Hajibeyli Street, Gandjlik, Narimanov District, Baku AZ 1069,

8	Bahrain	Manama	Embassy of India, Bahrain Building 1090, Road No.2819, Block No.428, Al-Seef, Manama, Kingdom of Bahrain
9	Bangladesh	Dhaka	Plot No. 1-3, Park Road, Baridhara, Dhaka 1212, Bangladesh
10	Belarus	Minsk	Ulitsa Sobinova 63, Minsk -220040, Belarus
11	Belgium	Brussels	Embassy of India, 217, Chaussee de Vleurgat, 1050 Brussels, Belgium.
12	Bhutan	Thimphu	Embassy of India PO Box:193, Jungshina Thimphu
13	Botswana	Gaborone	Plot 5375, President's Drive P.O. Box: 249 Gaborone, Botswana.
14	Brazil	Brasília	SES 805 lote 24 Brasília DF CEP: 70.452-901
15	Brunei Darussalam	Bandar Seri Begawan	"Baitussyifaa", Simpang 40-22, Jalan Sungai Akar, Bandar Seri Begawan, BC 3915 Brunei Darussalam
16	Bulgaria	Sofia	4 Alfred Nobel Street, Geo Milev, Sofia 1113, Bulgaria
17	Cambodia	Phnom Penh.	No.50, Street No. 214, Samdech Pan Ave., Sangkat Boeung Raing, Khan Daun Penh, Phnom Penh.
18	Canada	Ottawa	High Commission of India, 10, Springfield Road, Ontario, Canada K1M 1C9, Ottawa.
10	Chilo	Santiago	971 Alcantara, Las Condes – Santiago ZIP Code: 7550427
19	Chile	Santiago	Embassy of India, Beijing, No.5,
20	China	Beijing	Liang Ma Qiao Bei Jie, Chaoyang District, Beijing 100600 China

21	Colombia	Bogotá	-
22	Congo [Democratic Republic]	Kinshasa	18-B, Avenue Batetela, C/Gombe, Kinshasa,, Democratic Republic of Congo, Congo
23	Cote d Ivoire [Ivory Coast]	Abidjan	Riviera IV Golf, Ilot No.2, Lot No. 29, BP 318, Abidjan 06.
24	Croatia	Zagreb	EMBASSY OF INDIA Bijenik 152B 10000 Zagreb (Croatia)
25	Cuba	Havana	Calle 21 no. 202. Esquina a K. Vedado.Havana,Cuba
26	Cyprus	Nicosia	Indra Gandhi Street,Montparnasse Hill, Eingomi,Nicosia
27	Czech Republic	Praha	Milady Horákové 60/93, 170 00 Praha 7
			Vangehusvej 15
28	Denmark	Copenhagen	2100 Copenhagen
29	Egypt	Cairo	5, Aziz Abaza Street, Zamalek, Cairo
30	Ethiopia	Addis Ababa	House No.658, Woreda 07, Kebele 08, Yeka Sub City, (Behind Aksum Hotel), P.B.No.528, Addis Ababa Ethiopia.
31	Fiji	Suva	High Commission of India, LICI Building, Level 7, Butt Street, Suva, Fiji
32	Finland	Helsinki	32 Kulosaarentie, 00570, Helsinki
33	France	Paris	13-15 rue Alfred Dehodencq 75016 - Paris, France

34	Germany	Berlin	Tiergartenstr.17 10785 Berlin, Germany
35	Ghana	Accra	No. 9 Ridge Road, Roman Ridge PO Box CT-5708, Cantonments
36	Greece	Athens	3, Kleanthous Str., Athens 10674
37	Guatemala	Guatemala	8 Avenida, 15-07, Zona 10, Guatemala City-01014 Guatemala
38	Guyana	Georgetown	High Commission of India, 307, Church & Peter Rose Streets
39	Hungary	Budapest	Budapest, Búzavirág u. 14, 1025 Hungary
40	Iceland	Reykjavik	Embassy of India, Tungata – 7, Reykjavik, Iceland.
41	Indonesia	Jakarta	JL HR Rasuna Said, Kav S-1 Kuningan, Jakarta Selatan, 12950, Indonesia
42	Iran	Tehran	Embassy of India, 22, Mir Emad Street (Corner of 9th alley), Dr. Beheshti Avenue, Tehran.
43	Iraq	Baghdad	House No. 18, Street No.16, Mohalla No. 609, Al Mansour, Baghdad (Iraq).
44	Ireland	Dublin	6 Leeson Park, Dublin 6, Ireland
45	Israel	Jerusalem	Embassy of India Tel Aviv, 140, Hayarkon Street, PO Box 3368, Tel Aviv-6345103
46	Italy	Rome	Via XX Settembre, 5 rome, Italy
47	Jamaica	Kingston	5 Earls Court, Acadia P.O. Box 446, Kingston-8, Jamaica(W.I)

48	Japan	Tokyo	2-2-11 Kudan-Minami, Chiyoda-ku, Tokyo 102-0074
49	Jordan	Amman	P.O. Box 2168, Amman 11181, Jordan
50	MADAGASCAR	Antananarivo	Embassy of India, 4, Lalana Rajaonson Emile, Tsaralalana, BP 1787,
51	Malawi.	Lilongwe	P.O. Box No. 1482, Plot No.55, Area-9, Lilongwe
52	Malaysia	Kuala Lumpur	Level 28, Menara 1 Mon't Kiara, No. 1, Jalan Mon't Kiara, 50480, Kuala Lumpur
53	Maldives	Malé	Athireege Aage, Ameeru Ahmed Magu, Henveiru, Male-20125.
54	(Mali)	Bamako	101, Avenue de l'OUA, Badalabougou Est, B.P. No. 8008, Bamako (Mali)
55	Malta	Santa Venera	29, Triq-Galanton Vassallo, Santa Venera, SVR1901, Malta.
			6th Floor, L.I.C. Building Pres. John Kennedy Street P.O. Box 162
56	Mauritius	Louis	Port Louis
57	Mexico	Polanco	Musset 325, Col. Polanco, Mexico City – 11550
Ε0	Managlia	Lileanhaatar	Beijing Street-8, 7th Khoroo, Sukhbaatar Duureg (District) Ulaanbaatar-14190, Post Box 691 Ulaanbaatar
58	Mongolia	Ulaanbaatar	Mongolia #88, Rue Ouled Tidrarine (Behind Super Marché Champion on Avenue Mehdi Ben Barka), Souissi,
59	Morocco	Rabat	Rabat (Morocco)
60	Mozambique	Manuto	High Commission of India, Avenida Kenneth Kaunda, No. 167,PO Box 4751,Maputo,
60	Mozambique	Maputo	Mozambique

			Embassy of India, Yangon
			545-547 Merchant St
			Kyauktada Township
61	Myanmar	Naypyidaw	Yangon
			High Commission of India ,97,
			Nelson Mandela Avenue,
62	Namibia	Windhoek	Windhoek.
63	Nepal.	Kathmandu	
			Buitenrustweg 2,
64	Netherlands	Amsterdam	2517 KD The Hague
			Ranchhod Tower, Level-2, 102-112,
			Lambton Quay,
			Wellington-6011 PO Box:4045
65	New zealand	Wellington	New Zealand
			Rue Ambassades 14
			Kouara Kano
			BP 201
00	N. I	Nico	Niamey
66	Niamey	Niger	Niger
			364, Cadastral Zone, Central Business District (CBD),
			Off Constitution Avenue, FCT,
67	Nigeria	Abuja	Abuja.
07	Nigeria	Abuju	Abuja.
			Niele Juele Cate 20, DO Boy 40EE
68	Norway	Oslo	Niels Juels Gate 30, PO Box 4055 AMB, 0244, Oslo, Norway
00	INDIWay	OSIO	Kaskad Business Center,
			5th floor, 6/1,
			Kabanbai Batyr Avenue,
69	Kazakhstan	Astana	Astana, Kazakhstan.
			Bank of India Building
			Nkrumah Road
			PO Box 90164
70	Kenya	Mombasa	Mombasa
			Embassy of India
			6 Munsudong
			District Daedonggang
	(Pyongyang, Democratic Peoples
71	Korea (DPR)	Pyongyang	Korea
			101, Hannam Dong, Dokseodang-
72	Korea (ROK)	Seoul	ro, Yongsan-gu, Seoul 04419

			Diplomatic Enclave, Arabian Gulf
			Street P.O. Box 1450, Safat-13015,
73	Kuwait	Safat	Kuwait
			100-A, Mahatma Gandhi Street,
74	Kyrgyzstan	Bishkek	Bishkek - 720010 (Kyrgyzstan)
			No. 125, Unit 7, Ban Saphanthong
			Kang, Sisattanak District, PO Box
75	Laos	Vientiane	No.225, Vientiane
			239, Ibrahim Abed El Aal Street,
76	Lebanon	Beirut	Hamra, Ras Beirut, Beirut
			Nafleen Area, Near Fashloom
			Roundabout
			P. O. Box 3150
77	Libyo	Tripoli	Tripoli
77	Libya	Tripoli	Libya
			Jami'at AI - Dowal AI - Arabiya Street,
			Diplomatic Area, Al Khuwair,
78	Oman	Muscat	P.O. Box 1727, PC: 112
	Sman	Massac	Mahatma Gandhi Street,
			Ain Areek Crossing, Beitunia
			Ramallah,
79	Palestine	Ramallah	Palestine
			No.10325, Avenida Federico Boyd,
			Bella Vista
			Apdo 0823-05815
80	Panama	Panama	Panama
			HIGH COMMISSION OF INDIA
			PORT MORESBY
			Section 7, Lot 30, Lawes Road Granville, National Capital
			District(NCD)
			Post Box No.86, Waigani, NCD,
81	Papua New Guinea	Moresby	Port Moresby, Papua New Guinea
			Av. Salaverry 3006, San Isidro,
82	Peru	Lima	Lima 27
			Embassy of India , 2190, Paraiso
			Street, Dasmarinas Village, Makati
83	Philippines	Metro Manila	City, Metro Manila , Philippines
			,
			2 Mysliwiecka Street,
84	Poland	Warsaw	Warsaw 00-459, Poland.
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			Rua Pero da Covilha, No. 16, Restelo, 1400-297, Lisbon,
85	Portugal	Lisbon	Portugal
06	Octor	Doho	Villa No 86 & 90, Street No. 941, Al Eithra Street, Zone 63, Onaiza, P.O. Box 2788,
86	Qatar	Doha	Doha - Qatar.
87	Romania	Bucharest	46, Boulevard Aviatorilor, Sector-1, Bucharest
88	Russia	MOSCOW	6-8 VORONTSOVO POLYE STREET MOSCOW (RUSSIA) 105064
89	Saudi Arabia	Riyadh	B-1, Diplomatic Quarter P.O.Box No. 94387 Riyadh- 11693, Saudi Arabia
90	Senegal	Dakar	5, Avenue Carde, BP 398, Dakar, Senegal
91	Serbia	Belgrade	Djordja Radojlovica 7a 11040 , Belgrade
92	Seychelles	MAHE	High Commission of India 3RD FLOOR, MAISON ESPLANADE, FRANCIS RACHEL STREET, VICTORIA, MAHE, SEYCHELLES (P.O. BOX NO.488)
93	Singapore	Singapore	High Commission of India 31, Grange Road Singapore 239702.
0.4	Slavak Danublia	Bratislava	Dunajská 4, 7th Floor, 811 08 Bratislava
94	Slovak Republic	Diausiava	Embassy of India Železna cesta 16 1000 Ljubljana
95	Slovenia	Ljubljana	Republic of Slovenia
96	South Africa	Pretoria	P.O. Box 40216, Arcadia 0007, Pretoria, South Africa
97	South Sudan	Juba	Embassy of India Plot No. 209-245 Block 3-K (South), Juba Na Bari

98	Spain	Madrid	Embassy of India Avenida Pio XII, 30-32 28016 Madrid.
99	Sri Lanka	СОГОМВО	HIGH COMMISSION OF INDIA 36-38 GALLE ROAD, COLOMBO- 3
100	Sudan	Khartoum	Plot No. 2 Al Amarat Street No. 01/ Block 12 DH, Eastern Extension
100	Suriname	Paramaribo	Embassy of India, Dr. Sophie Redmondstraat 239, PO Box 1329,
102	Sweden	Stockholm	Paramaribo,Suriname. Embassy of India, Stockholm Adolf Fredriks Kyrkogata 12, Box 1340, 111 83 Stockholm
103	Switzerland	Berne	The Embassy of India Kirchenfeldstrasse 28, CH-3005 Berne, Switzerland
104	Syria	Damascus	455, Sharkassiyeh, Ibn, Al Haitham Street, Rumaneh, Damascus, Syria
105	Tajikistan	Dushanbe	Embassy of India 45, Bukhoro street, Dushanbe, 734025, Tajikistan
106	Tanzania	Dodoma	Shaaban Robert Street, Plot No. 213/51, P.O. Box 2684, Dar es Salaam.
106	Thailand	Bangkok	46, Prasarnmitr, Sukhumvit, Soi 23, Bangkok - 10110
108	Trinidad and Tobago	Spain	# 6, Victoria Avenue, Port of Spain Trinidad and Tobago Telephone: 001-868-2254340
109	Tunisia	Tunis	Embassy of India 4 Rue Didon, Place Notre Dame Mutuelleville, Tunis 1002 Tunisia
110	Turkey	Cankaya	Home > Contact Us Embassy of India 77, Cinnah Caddesi, Cankaya 06680,
	· ··-,	, ,	

			Y. Emre 1, Mir 2/1, P.O. Box No.80, Ashgabat [TURKMENISTAN]
111	Turkmenistan	Ashgabat	744017
112	Uganda	Kampala	High Commission of India Plot No.11, Kyadondo Road Nakasero, P.O.Box 7040 Kampala Uganda
112	Lluraina	V. dv	Embassy of India, Kyiv, Ukraine 20- B, Maxima Berlinskogo Street
113	Ukraine United Arab Emirates	Kyiv Abu Dhabi	Plot No. 10, Sector W-59/02, Diplomatic Area, Off the Airport Road, P. O. Box 4090, Abu Dhabi, U.A.E.
115	United Kingdom	London	High Commission of India India House, Aldwych, London, WC2B 4NA
116	United States of America	NW Washington	2107 Massachusetts Avenue, NW Washington, DC 20008
117	UN-PMI (CD)Geneva	Switzerland	Permanent Mission of India to the Conference on Disarmament 7-9, Rue du Valais 1202 Geneva Switzerland
118	UN-PMI(Geneva)	dRue u Valais	Permanent Mission of India to the UN in Geneva, 9 dRue u Valais, Geneva 1202
119	UN-PMI(New York)	Long Island	The Permanent Mission of India to the United Nations is located at 235 East, 43rd Street, [between 2nd and 3rd Avenue], New York 10017
120	Uzbekistan	Tashkent	16 Kara-Bulak str. (Vakhshskaya) Street, Mirzo Ulugbek District, Tashkent - 700052 (Uzbekistan)
121	Venezuela	Caracas	
122	Vietnam	Hanoi	Address :58-60 Tran Hung Dao Street, Hoan Kiem District, Hanoi

123	Yemen	Djibouti	B.P. Lot Salines ouest theatre, lot G 32-B-1-14, Djibouti,
124	Zambia	Lusaka	No.1 Pandit Nehru Road, Loangacres, P.O. Box. 32111, Lusaka, Zambia
125	Zimbabwe	Harare	No.12, Natal Road, Belgravia,, Post Box 4620, Harare, Zimbabwe

COMMERCIAL BID -I

Sr. No.	Description of Items & Specification	Qty in Units	Unit Price In Rs.	G.S.T %	Other Charges if any please specify details in Rs.	Total Price in Rs.
	Solar Urja Lamp (SoUL) Kit (Details & Specification as per Section-5)	1 No.				
2.	Cost of toolkit (1 toolkit per 25 lamps)Details & Specification as per Section -5)	1 No.				

Delivery Mode: Delivery at site only. Note: Total bid price in the above column should unloading etc.	be inclusive of all taxes and levies transport, loading,
Delivery Period : days.	
Validity Date: Minimum 180 days from the date of	of submission of quotation/tender.
Payment Term: 100% Payment within 30 days a	fter delivery and acceptance of the material. PAN No
	GST Registration No
	Signature :
	Name :
Place:	Business Address :
Date:	Affix Rubber Stamp :
Note: Price Bid should be submitted in given	format only.

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COMMERCIAL BID – II (A) Within India

Tender No: MMD/ESE/SOUL/KIT/L/2019-20 Due Date: 2nd May 2019

Sr. No. (I)	State in India	No of Districts	Estimated Qty.	Transportation Cost (Per Unit)
1	Andra Pradesh	13	1300	
2	Arunachal Pradesh	24	2400	
3	Assam	33	3300	
4	Bihar	38	3800	
5	Chhatisgarh	27	2700	
6	Goa	02	200	
7	Gurjarat	33	3300	
8	Haryana	22	2200	
9	Himacha Pradesh	12	1200	
10	Jammu & Kashmir	22	2200	
11	Jharkhand	24	2400	
12	Karnataka	30	3000	
13	Kerala	14	1400	
14	Madhya Pradesh	52	5200	
15	Maharashtra	36	3600	
16	Manipur	16	1600	
17	Meghalaya	11	1100	
18	Mizoram	08	800	
19	Nagaland	11	1100	
20	Odisha	30	3000	
21	Punjab	22	2200	
22	Rajasthan	33	3300	
23	Sikkim	04	400	
24	Tamil Nadu	33	3300	
25	Tripura	08	800	
26	Uttar Pradesh	75	7500	
27	Uttarakhand	13	1300	

28	West Bengal	23	2300	
29	Telangana	31	3100	
(II)	List of Union Territories			
30	Andaman & Nicobar Islands	03	300	
31	Chandigrah	01	100	
32	Dadara & Nagar Haveli	01	100	
33	Daman & Diu	02	200	
34	Lakshadweep	01	100	
35	Pondicherry	04	400	
36	NCT Delhi	11	1100	
	Total	722	72200	

All other allied expenditure, handling materials $\,\&\,$ transportation cost will be borne by the Vendor.

COMMERCIAL BID – II (B) Other Countries

Tender No.:- MMD/ESE/SOUL/KIT/2019-20 Due Date: 2nd May 2019

Sr. No. (I)	Delivery city	Country	Currency of quote	Transportation Cost (Per Unit)
1	Tirana	Albania		
2	Andorra la Vella	Andorra		
3	Luanda	Angola		
4	Saint John's	Antigua and Barbuda		
5	Canberra	Australia		
6	Nassau	Bahamas		
7	Bridgetown	Barbados		
8	Porto-Novo	Benin		
9	Sucre (de jure), La Paz	Bolivia		
10	Ouagadougou	Burkina Faso		
11	Gitega	Burundi		
12	Praia	Cabo Verde		
13	Yaounde	Cameroon		
14	Bangui	Central African Republic		
15	N'Djamena	Chad		
16	Moroni	Comoros		
17	Brazzaville	Congo, Republic of the		
18	San Jose	Costa Rica		
19	Djibouti (city)	Djibouti		
20	Roseau	Dominica		
21	Santo Domingo	Dominican Republic		
22	Quito	Ecuador		
23	San Salvador	El Salvador		
24	Malabo (de jure), Oyala (seat of	Equatorial Guinea		

	government)		
25	Asmara	Eritrea	
26	Tallinn	Estonia	
27	Mbabane (administrative), Lobamba (legislative, royal)	Eswatini (formerly Swaziland)	
28	Libreville	Gabon	
29	Banjul	Gambia	
30	Tbilisi	Georgia	
31	Saint George's	Grenada	
32	Conakry	Guinea	
33	Bissau	Guinea-Bissau	
34	Port-au-Prince	Haiti	
35	Tegucigalpa	Honduras	
36	New Delhi	India	
37	Astana	Kazakhstan	
38	Nairobi	Kenya	
39	Tarawa	Kiribati	
40	Pristina	Kosovo	
41	Kuwait City	Kuwait	
42	Bishkek	Kyrgyzstan	
43	Vientiane	Laos	
44	Riga	Latvia	
45	Beirut	Lebanon	
46	Maseru	Lesotho	
47	Monrovia	Liberia	
48	Tripoli	Libya	
49	Vaduz	Liechtenstein	
50	Vilnius	Lithuania	
51	Luxembourg (city)	Luxembourg	
52	Majuro	Marshall Islands	
53	Nouakchott	Mauritania	
54	Chisinau	Moldova	

55	Monaco	Monaco	
56	Ulaanbaatar	Mongolia	
57	Podgorica	Montenegro	
58	Yaren District (de facto)	Nauru	
59	Managua	Nicaragua	
60	Niamey	Niger	
61	Pyongyang	North Korea	
62	Islamabad	Pakistan	
63	Ngerulmud	Palau	
64	Asunción	Paraguay	
65	Kigali	Rwanda	
66	Basseterre	Saint Kitts and Nevis	
67	Castries	Saint Lucia	
68	Kingstown	Saint Vincent and the Grenadines	
69	Apia	Samoa	
70	San Marino	San Marino	
71	São Tomé	Sao Tome and Principe	
72	Freetown	Sierra Leone	
73	Honiara	olomon Islands	
74	Mogadishu	Somalia	
75	Seoul	South Korea	
76	Taipei	Taiwan	
77	Dili	Timor-Leste	
78	Lomé	Togo	
79	Nuku'alofa	Tonga	
80	Funafuti	Tuvalu	
81	Montevideo	Uruguay	
82	Port Vila	Vanuatu	
83	Vatican City	Vatican City (Holy See)	
II	Delivery City	Country Name	
1	Kabul	Afghanistan	

2	Val d`Hydra	Algeria	
3	Luanda	Angola	
4	Buenos Aires	Argentina	
5	Yerevan	Armenia	
6	Vienna	Austria	
7	Baku	Azerbaijan	
8	Manama	Bahrain	
9	Dhaka	Bangladesh	
10	Minsk	Belarus	
11	Brussels	Belgium	
12	Thimphu	Bhutan	
13	Gaborone	Botswana	
14	Brasília	Brazil	
15	Bandar Seri Begawan	Brunei Darussalam	
16	Sofia	Bulgaria	
17	Phnom Penh.	Cambodia	
18	Ottawa	Canada	
19	Santiago	Chile	
20	Beijing	China	
21	Bogotá	Colombia	
22	Kinshasa	Congo [Democratic Republic]	
23	Abidjan	Cote d Ivoire [Ivory Coast]	
24	Zagreb	Croatia	
25	Havana	Cuba	
26	Nicosia	Cyprus	
27	Praha	Czech Republic	
28	Copenhagen	Denmark	
29	Cairo	Egypt	
30	Addis Ababa	Ethiopia	
31	Suva	Fiji	
32	Helsinki	Finland	

33	Paris	France
34	Berlin	Germany
35	Accra	Ghana
36	Athens	Greece
37	Guatemala	Guatemala
38	Georgetown	Guyana
39	Budapest	Hungary
40	Reykjavik	Iceland
41	Jakarta	Indonesia
42	Tehran	Iran
43	Baghdad	Iraq
44	Dublin	Ireland
45	Jerusalem	Israel
46	Rome	Italy
47	Kingston	Jamaica
48	Tokyo	Japan
49	Amman	Jordan
50	Antananarivo	MADAGASCAR
51	Lilongwe	Malawi.
52	Kuala Lumpur	Malaysia
53	Malé	Maldives
54	Bamako	(Mali)
55	Santa Venera	Malta
56	Louis	Mauritius
57	Polanco	Mexico
58	Ulaanbaatar	Mongolia
59	Rabat	Morocco
60	Maputo	Mozambique
61	Naypyidaw	Myanmar
62	Windhoek	Namibia
63	Kathmandu	Nepal.
64	Amsterdam	Netherlands
65	Wellington	New zealand

66	Niger	Niamey	
67	Abuja	Nigeria	
68	Oslo	Norway	
69	Astana	Kazakhstan	
70	Mombasa	Kenya	
71	Pyongyang	Korea (DPR)	
72	Seoul	Korea (ROK)	
73	Safat	Kuwait	
74	Bishkek	Kyrgyzstan	
75	Vientiane	Laos	
76	Beirut	Lebanon	
77	Tripoli	Libya	
78	Muscat	Oman	
79	Ramallah	Palestine	
80	Panama	Panama	
81	Moresby	Papua New Guinea	
82	Lima	Peru	
83	Metro Manila	Philippines	
84	Warsaw	Poland	
85	Lisbon	Portugal	
86	Doha	Qatar	
87	Bucharest	Romania	
88	MOSCOW	Russia	
89	Riyadh	Saudi Arabia	
90	Dakar	Senegal	
91	Belgrade	Serbia	
92	MAHE	Seychelles	
93	Singapore	Singapore	
94	Bratislava	Slovak Republic	
95	Ljubljana	Slovenia	
96	Pretoria	South Africa	
97	Juba	South Sudan	
98	Madrid	Spain	

99	COLOMBO	Sri Lanka
100	Khartoum	Sudan
101	Paramaribo	Suriname
102	Stockholm	Sweden
103	Berne	Switzerland
104	Damascus	Syria
105	Dushanbe	Tajikistan
106	Dodoma	Tanzania
107	Bangkok	Thailand
108	Spain	Trinidad and Tobago
109	Tunis	Tunisia
110	Cankaya	Turkey
111	Ashgabat	Turkmenistan
112	Kampala	Uganda
113	Kyiv	Ukraine
114	Abu Dhabi	United Arab Emirates
115	London	United Kingdom
116	NW Washington	United States of America
117	Switzerland	UN-PMI (CD)Geneva
118	dRue u Valais	UN-PMI(Geneva)
119	Long Island	UN-PMI(New York)
120	Tashkent	Uzbekistan
121	Caracas	Venezuela
122	Hanoi	Vietnam
123	Djibouti	Yemen
124	Lusaka	Zambia
125	Harare	Zimbabwe

Note: Estimated quantity of 500 kits to be supplied to every Country.

All other allied expenditure, handling materials & transportation cost will be borne by the Vendor.

Section 7 : Annexures Annexure – I : Declaration Regarding Clean Track by Bidder

(On Company / firm's Letterhead)

Date:

To, The Joint Registrar Materials Management Division I.I.T. Bombay, Powai, Mumbai – 400 076.

Sir,

Ref: Tender No.MMD/ESE/SOUL/KIT/L/2019-20 dated 3rd April 2019 for "Empanelment and Rate Contract for Solar Urja Lamp (SOUL) Kit."

I've carefully gone through the Terms & Conditions contained in the above referred Tender. I hereby declare that my company / firm is not currently debarred / black listed by any Government / Semi Government Organizations / Institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following

No.	which the company is debarred /	debarred by Government/Se mi Government Organizations/	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding Period for which the company / firm was blacklisted and the reason/s for the same)

Yours faithfully

(Signature of the Bidder) Printed Name Designation Seal Date

ANNEXURE A2 : Declaration for Acceptance of Tender Terms & Conditions (On Company / firm's Letterhead)

Date:

To, The Joint Registrar Materials Management Division I.I.T. Bombay, Powai, Mumbai – 400 076.

Sir,

Ref: Tender No.MMD/ESE/SOUL/KIT/L/2019-20 dated 3rd April 2019 for 'Empanelment and Rate Contract for Solar Urja Lamp (SOUL) Kit.'

I've carefully gone through the Terms & Conditions as mentioned in the above referred Tender document. I declare that all the provisions of this Tender are acceptable to my company. further certify that I'm an authorized signatory of my company and therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder) Printed Name Designation Seal

ANNEXURE A3: Declaration Of Income Tax Return

(On Company / firm's Letterhead)

	[Date:
To,		
Mater I.I.T. E	Joint Registrar rials Management Division Bombay, ai, Mumbai – 400 076.	
Sir,		
	Tender No. MMD/ESE/SOUL/KIT/L/2019-20 dt.3rd April 20 Rate Contract for Solar Urja Lamp (SOUL) Kit.)19 "Empanelment
1)	I/we hereby declare that, our firm had filed Income Tax Retu A.Y. 2018-19 (F. Y. 2017 – 18) & A.Y. 2017-18 (F. Y. 2016 copies of ITR of two years.	
Yours	s faithfully,	
Printe	ature of the bidder) ed Name gnation	
Date : Busin	: ness Address :	
Encl :	: As above	

Anenexure -A4: Bidder's Information

The Vendors must provide the following mandatory information & attach copies wherever mentioned:-

1	Name of the Firm	
2	Nature of Firm (Ltd., Co./Partnership etc.) (Attach Attested Copy of Partnership Deed/Certification of Incorporation	
3	Registration No. if any / Trade License No.(Attach photocopy)	
4	Registered Office address	
5	Address for communication	
6	Name of the contact person	
7	Telephone No.	
8	Email Id	
9	Permanent Income Tax Account No. (Attach photocopy)	
10	GST No. (Attach photo Copy)	
11	Name of Bankers with Full address & A/c No. (in case of e-transfer/e-payment)	
12	Are you associated with IIT Bombay. If yes. Give details	

ANNEXURE A5: Client Work Experience

(On Company / firm's Letterhead)

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To, The Joint Registrar Materials Management Division I.I.T. Bombay, Powai, Mumbai – 400 076.

Ref: Tender No. MMD/ESE/SOUL/KIT/L/2019-20 dated 3rd April, 2019 for "Empanelment and Rate Contract for Solar Urja Lamp (SoUL) Kit"

Details of Client Work Experience as per Point No.8 of Section 2 (Copy of Purchase Order / Work Completion to be enclosed):

Sr. No.	Name of Organization	Purchase Order / Rate Contract Detail	Purchase Order / No & dt.	Purchase Order amount	Client contact Person Name and Designation	Client contact Details with e-mail

Yours faithfully

(Signature of the bidder)
Printed Name
Designation

Sign and Seal

Date: Business Address:

Encl: As above

Section 8 – Formats 1. Format for Earnest Money Deposit / Bid Bond

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred) (To be established through any of the nationaled banks (whether situated at mumbai or outstation) with a clause to enforce the same on their local branch at mumbai or any scheduled bank (other than nationalised bank) situated at mumbai. Bonds ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED)

LETTER OF GUA	ARANTEE
To, Registrar, Indian Institute of Technology Bombay Powai, Mumbai – 400 076	
IN ACCORDANCE WITH YOUR TENDER M/s	aving its Registered Office at
During the validity of this Bank Guarantee: We,(Bank name) having its regiundertake to pay immediately on first demand by(Rupees) without any reservation, promade by the IIT Bombay shall be conclusive and recounshall be binding on the Bank irrespective of any dispute on the Guarantee shall be irrevocable and shall redate of issue of Bank Guarantee) If any further extension required period on receiving instruction form the Bidder, or	the amount of Rstest, demur and recourse. Any such demand rese. Any such demand made by the purchaser difference raised by the Bidder. Emain valid up to(180 days from the is required, the same shall be extended to such
* Our liability under this Bank Guarantee shall no * This Bank Guarantee shall be valid up to * We are liable to pay the guaranteed amount Only and only if you serve upon us a written claim or befor This Bank further agrees that the claims if any, against the branch office at situated at	or any part thereof under this Bank Guarantee (date). The control of the control
	Yours truly,
	Signature and seal of the guarantor: Name of Bank: Address: Date:

Bank is requested to take appropriate necessary action on or after expiry of bond period.

2. Format of Performance Guarantee

(To be typed on <u>Non-judicial stamp paper</u> of the value of Indian Rupees of One Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT MUMBAI OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT MUMBAI OR ANY SCHEDULED BANK (OTHER THAN NATIONALISED BANK) SITUATED AT MUMBAI. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.)

To, Registrar Indian Institute of Technology Bombay Powai, Mumbai – 400 076

Letter of Guarantee

WHEREAS Indian Institute of Technology Bombay (Buyer) have invited Tenders Vide Rate contract No. Dated for the purchase of items under rate contract AND WHEREAS the said tender document requires that any eligible successful tenderer (seller) wishing to supply the equipment / Kits / Machinery etc. in response thereto shall establish an irrevocable performance Guarantee Bond in favour of "The Registrar, Indian Institute of Technology Bombay" in the form of Bank Guarantee for Rs. 1.5 crores (Rupees Only) and valid till one year or upto warranty period of kits whichever is later from the date of issue of performance guarantee Bond.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (se	ller) failing
to abide by any of the conditions referred in tender document / Rate Contract / perfo	rmance of
the equipment / Machinery / Kits etc. this bank shall pay to Indian Institute of Te	echnology,
Bombay on demand and without protest or c	demur Rs.
(Rupees Only)	

This bank further agrees that the decision of Indian Institute of Technology Bombay (Buyer) as to whether the said tenderer (seller) has committed a breach of any of the conditions referred in tender document / Rate Contract shall be final and binding

We, (Name of the bank and branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the tenderer (seller) and / or Indian Institute of Technology Bombay (buyer)

Not with Standing anything contained herein

- Our liability under this bank Guarantee shall not exceed Rs.______

 (Indian Rupees Only)
- 2. This Bank Guarantee shall be valid up to (date) and
- 3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IIT Bombay serve upon us a written claim or demand on or before date

This Bank further agrees that the claims if any, against this bank guarantee shall be enforceable at our branch office at situated at (Address of local branch)

Yours truly,
Signature and seal of the guarantor
Name of the bank :
Address:
Date :

Instruction to bank: Bank should note that on expiry of band period, the original bond will not be returned to the bank. Bank is requested to take appropriate necessary action on or after expiry of bond period

Section 9- Checklist

Technical bid Cover:

This Envelope should contain the following information:

- i. Tender Document duly sealed and signed by the authorized signatory on every page.
- ii. Earnest money deposit for an amount of Rs.30,00,000/-
- iii. Eligibility Criteria Responses.
- iv. All relevant documents as per technical bid deliverables mentioned in the tender document.
- v. Product catalogues, information brochures, etc as per the tender document.
- vi. Prototype of five (5) SoUL kits (assembled) and five (5) SoUL kits (disassembled form).

Commercial bid Cover:

This Envelope should contain the following information:

i. Commercial Bids