

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



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Table of Contents

Section 1 : Invitation for Bids

Section 2 : Eligibility Criteria

Section 3 : Instruction to Bidders

Section 4 : Terms and Conditions

Section 5 : Scope of work and Technical Specification

Section 6 : Commercial Bid

Commercial Bid- I

Commercial Bid-II

Section 7 : Annexures

Annexure A1 : Declaration Regarding Clean Track by Bidder

Annexure A2 : Declaration for Acceptance of Tender Terms & Conditions

Annexure A3 : Declaration of Income Tax Return

Annexure A4 : Bidders Information

Annexure A5 : Client Work Experience Details.

Section 8 : Formats

Format 1- Format of Bank Guarantee (Earnest Money Deposit)

Format 2 – Format of Bank Guarantee (Performance Guarantee)

Section 9 : Checklist

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 harshad@soulsiitb.in <u>Contact No. : 022-2576 7895</u>
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 initiative 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 mega-global 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 outside 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 :

1. 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 :

- 1 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 :

1. 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 bid-closing 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:

1. 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 :

1. 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.
2. 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 :

1. 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.
5. 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. Notwithstanding 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.
3. 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.
3. 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.
7. 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.

10. 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.
13. 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.
14. The performance guarantee bond shall be kept valid during the period of contract and shall continue to be enforceable for a **period of one year from the date of order acknowledgment or upto warranty period whichever is later.**

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:
- i. 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

1. 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
2. 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	$V_{mp} \times I_{mp} \geq 2.5W_p$
Voltage at maximum power point	$\geq 5 V$
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.	
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
D o D	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 (years) mentioned. The above mentioned details should be in readable form to all.	

3. Specification of Circuit and LED

Circuit		
Dimension	Refer www.openhardware.soulsiitb.in	
Reverse current protection	To be included	
Short Circuit Protection	To be included	
Battery upper voltage cut-off	3.6± 0.1 V	
Battery lower voltage cut-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	
Indication	Red	ON @ low voltage = 3 V
	Green	Blinking while charging
		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) 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 Consumption (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 the 45 cm diameter from height of 30 cm.
Luminous performance of LED (Efficacy)	Minimum 150 Lumen per Watt	
Operating Temperature	30°C to 85°C	
Color rendering and 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 www.openhardware.soulsiitb.in Annexure-1
Lantern housing material	1) SoUL Lamp Body:

	<p>Material: ABS (Matte Finish) Color: Yellow-CM 606 (Reference by Bhansali Engineering Polymers)</p> <p>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</p> <p>3) Plastic Plate to cover LED (Reflector): Material: ABS (Gloss Finish) Color: IFB White / Parker White</p>
Ingress Protection (IP)	<p>IP 33 Special protection is required for preventing dust entering from the switch or through any other part into the body of the lamp.</p>
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	
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
Operating Manual	1 per SoUL kit (5-6 folded A4 size colour printed 100 GSM paper). The artwork will be provided to selected bidders by IITB.
SSA Logo	1per SoUL kit (Size L (25 mm) x b (20 mm)). The details will be provided to selected bidders by IITB.
Mother box(Delivery Boxes) Packaging material	Quality colour printing (3 colors) on package should 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.
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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	Use
1	Multimeter	1	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
3	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	5	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	
General (including Lamp Body)	Lamp housing material	
	Ingress Protection	
	Portability	
	Physical condition	
Light Emitting Diode(LED)	Make	
	Colour rendering and appearance	
	Light appearance	
	Light distribution	
	Operating Voltage	
	Power Consumption (P max)	
	Illuminance	
	Luminous performance of LED	
	Operating Temperature	
	Energy Storage System	Battery chemistry type
Make		
Nominal Operating Voltage (D.C.)		
Battery capacity (mAh)		
D o D		
Connectivity		

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

1. 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.

I	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	

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	
II	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.
19	Chile	Santiago	971 Alcantara, Las Condes – Santiago ZIP Code: 7550427
20	China	Beijing	Embassy of India, Beijing, No.5, 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
28	Denmark	Copenhagen	Vangehusvej 15 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, LIC 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.
56	Mauritius	Louis	6th Floor, L.I.C. Building Pres. John Kennedy Street P.O. Box 162 Port Louis
57	Mexico	Polanco	Musset 325, Col. Polanco, Mexico City – 11550
58	Mongolia	Ulaanbaatar	Beijing Street-8, 7th Khoroo, Sukhbaatar Duureg (District) Ulaanbaatar-14190, Post Box 691 Ulaanbaatar Mongolia
59	Morocco	Rabat	#88, Rue Ouled Tidrarine (Behind Super Marché Champion on Avenue Mehdi Ben Barka), Souissi, Rabat (Morocco)
60	Mozambique	Maputo	High Commission of India, Avenida Kenneth Kaunda, No. 167, PO Box 4751, Maputo, Mozambique

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

73	Kuwait	Safat	Diplomatic Enclave, Arabian Gulf Street P.O. Box 1450, Safat-13015, Kuwait
74	Kyrgyzstan	Bishkek	100-A, Mahatma Gandhi Street, Bishkek - 720010 (Kyrgyzstan)
75	Laos	Vientiane	No. 125, Unit 7, Ban Saphanthong Kang, Sisattanak District, PO Box No.225, Vientiane
76	Lebanon	Beirut	239, Ibrahim Abed El Aal Street, Hamra, Ras Beirut, Beirut
77	Libya	Tripoli	Nafleen Area, Near Fashloom Roundabout P. O. Box 3150 Tripoli Libya
78	Oman	Muscat	Jami'at Al - Dowal Al - Arabiya Street, Diplomatic Area, Al Khuwair, P.O. Box 1727, PC: 112
79	Palestine	Ramallah	Mahatma Gandhi Street, Ain Areek Crossing, Beitunia Ramallah, Palestine
80	Panama	Panama	No.10325, Avenida Federico Boyd, Bella Vista Apdo 0823-05815 Panama
81	Papua New Guinea	Moresby	HIGH COMMISSION OF INDIA PORT MORESBY Section 7, Lot 30, Lawes Road Granville, National Capital District(NCD) Post Box No.86, Waigani, NCD, Port Moresby, Papua New Guinea
82	Peru	Lima	Av. Salaverry 3006, San Isidro, Lima 27
83	Philippines	Metro Manila	Embassy of India , 2190, Paraiso Street, Dasmarinas Village, Makati City, Metro Manila , Philippines
84	Poland	Warsaw	2 Mysliwiecka Street, Warsaw 00-459, Poland.

85	Portugal	Lisbon	Rua Pero da Covilha, No. 16, Restelo, 1400-297, Lisbon, Portugal
86	Qatar	Doha	Villa No 86 & 90, Street No. 941, Al Eithra Street, Zone 63, Onaiza, P.O. Box 2788, 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.
94	Slovak Republic	Bratislava	Dunajská 4, 7th Floor, 811 08 Bratislava
95	Slovenia	Ljubljana	Embassy of India Železna cesta 16 1000 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	COLOMBO	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
101	Suriname	Paramaribo	Embassy of India, Dr. Sophie Redmondstraat 239, PO Box 1329, Paramaribo, Suriname.
102	Sweden	Stockholm	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,

111	Turkmenistan	Ashgabat	Y. Emre 1, Mir 2/1, P.O. Box No.80, Ashgabat [TURKMENISTAN] 744017
112	Uganda	Kampala	High Commission of India Plot No.11, Kyadondo Road Nakasero, P.O.Box 7040 Kampala Uganda
113	Ukraine	Kyiv	Embassy of India, Kyiv, Ukraine 20-B, Maxima Berlinskogo Street
114	United Arab Emirates	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**Tender No . :- MMD/ESE/SOUL/KIT/L/2019-20****Due Date: 2nd May 2019**

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.
1.	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 be inclusive of all taxes and levies transport, loading, unloading etc.

Delivery Period :..... days.

Validity Date: Minimum 180 days from the date of submission of quotation/tender.

Payment Term: 100% Payment within 30 days after 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.

**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	Solomon 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.	Country in which the company is debarred / blacklisted / case is pending	Black listed / debarred by Government/ Semi Government Organizations/ Institutions	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,

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 dt.3rd April 2019 “Empanelment and Rate Contract for Solar Urja Lamp (SOUL) Kit.

- 1) I/we hereby declare that, our firm had filed Income Tax Returns for last years i.e. A.Y. 2018-19 (F. Y. 2017 – 18) & A.Y. 2017-18 (F. Y. 2016 – 17). Supported by copies of ITR of two years.

Yours faithfully,

(Signature of the bidder)
Printed Name
Designation
Seal

Date :
Business 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)

Date :

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 NATIONALISED 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 GUARANTEE

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

IN ACCORDANCE WITH YOUR TENDER for supply of,
M/s. (hereinafter called the "Bidder") having its Registered Office at,
wish to participate in the said bid for the supply as an irrevocable
Bank Guarantee against Earnest Money Deposit for an amount of Rs.
(Rupees.....) valid up to **(180 days from the date of issue of Bank
Guarantee)**, is required to be submitted by the bidder as a condition precedent for participating in the said
bid, which amount is liable to be forfeited by the Purchaser on (1) the withdrawal or revision of the offer by
the bidder within the validity period, (2) Non acceptance of the Letter of Indent / Purchase order by the
Bidder when issued within the validity period, (3) failure to execute the contract as per contractual terms
and condition with in the contractual delivery period and (4) on the happening of any contingencies
mentioned in the bid documents.

During the validity of this Bank Guarantee :

We,(Bank name) having its registered Office atguarantee and
undertake to pay immediately on first demand by the amount of Rs.....
(Rupees.....) without any reservation, protest, demur and recourse. Any such demand
made by the IIT Bombay shall be conclusive and recourse. Any such demand made by the purchaser
shall be binding on the Bank irrespective of any dispute or difference raised by the Bidder.

The Guarantee shall be irrevocable and shall remain valid up to(180 days from the
date of issue of Bank Guarantee) If any further extension is required, the same shall be extended to such
required period on receiving instruction form the Bidder, on whose behalf the is Guarantee is issued.

Notwithstanding anything contained herein :

- * Our liability under this Bank Guarantee shall not exceed Rs..... (Rupees.....)
- * This Bank Guarantee shall be valid up to(date).
- * We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee
Only and only if you serve upon us a written claim 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 Bank:
Address:
Date:

Instruction to Bank: Bank should note that on expiry of Bond 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.

2. Format of Performance Guarantee

(To be typed on Non-judicial stamp paper 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 (seller) failing to abide by any of the conditions referred in tender document / Rate Contract / performance of the equipment / Machinery / Kits etc. this bank shall pay to Indian Institute of Technology, Bombay on demand and without protest or _____ 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

1. 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