

INDIAN INSTITUTE OF TROPICAL METEOROLOGY
(An Autonomous Body under the Ministry of Earth Sciences, Govt. of India)
Dr. Homi Bhabha Road, Pashan, Pune-411008

IITM/EM/ SOLAR

NOTICE FOR EXPRESSION OF INTEREST (EOI)
FOR SETTING UP of 1MWp SOLAR POWER PLANT AT IITM CAMPUS

Director Indian Institute of Tropical Meteorology, Ministry of Earth Sciences, Govt of India, Dr. Homi Bhabha Road, Pashan, Pune –411 008 (India) invites sealed "Expression of Interest (EOI)" from authorized vendors meeting criteria as mentioned in the detailed document for setting up 1MWp SOLAR POWER PLANT AT IITM CAMPUS. The detail document regarding Expression of Interest (EOI) can be downloaded from <http://www.tropmet.res.in> or <http://eprocure.gov.in> or can be collected from Electrical Department.

Last date for submission of EOI : 24/07/2013 upto 13:00 PM

Opening of Documents : 24/07/2013 at 15:00 PM

Electrical Engineer ,for Director

E-mail: jnaneshtropmet.res.in



INDIAN INSTITUTE OF TROPICAL METEOROLOGY

(An Autonomous Body under the Ministry of Earth Sciences, Govt. of India)

NOTICE INVITING EXPRESSION OF INTEREST

FOR

DESIGN, ENGINEERING, SUPPLY, INSTALLATION,

TESTING, COMMISSIONING AND MAINTENANCE

(BOOT build-own-operate-transfer method)

OF 01-MW_p SOLAR POWER PLANT

AT

IITM CAMPUS, PASHAN-PUNE

Start Date for Downloading EOI document : 05/07/2013 at 03:00 PM

**Last date for submission of EOI with
Necessary Documents : 24/07/2013 at 3:00 PM**

INDEX

SECTION – I

INTRODUCTION:

Indian Institute of Tropical Meteorology (IITM), an Autonomous Body under the Ministry of Earth Sciences, Govt. of India, established on **17th Nov, 1962** a scientific & research institute dedicated for carrying out research for improving the monsoon forecast for the benefit of fellow countrymen. It has a high performance super-computer of 70 TF named “PRITHIVI” and getting upgraded to 790TF. Presently the Electrical load of IITM is 1.5 MW maximum and getting upgraded upto 4 MW maximum after expansion. The grid power is coming from Ganeshkind substation which is nearly 4km away through Express Feeder. Entire power of institute is having DG back up and minimum average shutdown in a month is about 10 hours approximately. Institute wishes to use renewable energy for power and is willing to set up 1MWp of solar power plant. Land area of around 5 acres approximately will be given to use for putting up of Solar PV panels. **The project will be executed on basis of BOOT (build–own–operate–transfer) method for a period of 10 years and entire product should carry a warranty of 25 years.** Director IITM Pune, reserves the right to extend the contract period after first ten years.

GENERAL / MISCELLANEOUS CLAUSES

1) The application form for Expression of Interest (EOI) is given in Annexure- I. Interested firms can submit the duly filled in application form along with all relevant supporting documents. The party should submit their background with details of experience in related projects.

- 2) The last date for receipt of EOI is mentioned in Section III.
- 3) The Applicant shall bear all cost associated with the preparation and submission of its EOI and Authority, will in no case be responsible or liable for reimbursement of any cost to conclude the process.
- 4) At any time before the submission of EOI, The authority may for any reason what so ever carry out amendments to this EOI documents at its own initiative or in response to a clarification requested by the service providers. The amendment will be made available in our website and will be binding on them. The authority may at its discretion extend the dead line for the submission of proposals.
- 5) Applicants will come up with the best suggestions on application of latest technologies in the related fields and will offer solutions in integrating such technologies for reliable, efficient and economic operation of the solar grid-connected power plant. Choice of latest technological trends with suitable analysis & justifications for application in the proposed project shall be furnished by each applicant.
- 6) All necessary works in firming up of requirements pertaining to the system components like Solar PV Panels, Inverters, Charge Controllers, Control Panels, Field Junction Boxes, and Mounting Structures etc. will be done by party as per Authority's requirement.
- 7) **SELECTION PROCEDURE: The authority will process EOI and only shortlisted candidates will be called for technical presentation and again technically shortlisted candidates would be called for offering of financial bids.**
- 8) The authority reserves the right to accept or reject any application without assigning any reason thereof.
- 11) The application that are incomplete in any respect or those that are not consistent with the requirements as specified in this document or those that do not adhere to formats, wherever specified may be considered non responsive and may be liable for rejection and no further correspondence will be entertained from such applicants.
- 12) Depending upon the response to the EOI, IITM reserves the right to go in for empanelment/short listing of the prospective applicants for seeking detailed bids.
- 14) The Applicant must be a reputed firm incorporated in India.

BROAD SCOPE OF ASSIGNMENT IN FINAL PACKAGE

(a) The broad scope of work for the subject package includes the following:

i) Design & Engineering of the solar modules & arrays with associated system comprising of DC system ,cables & JB's, inverters, transformation to the required voltage for necessary connection to the nearest grid at suitable voltage level, switchgears along with adequate protection and monitoring facilities upto the grid connection point. Augmentation of the bus, in case required to be carried out at the grid connection point shall also be a part of the project.

ii) Optimum design and engineering of suitable mounting structure as required for mounting the modules on the area with anti-corrosion feature so as to have minimum maintenance requirements during operational years of the plant.

iii) Survey & route finalization of the transmission line for connection to the nearby substation feeder.

iv) Supply of all the components including structures with necessary packaging & forwarding, transportation, loading, unloading and site-storage required for Successful implementation of the project upto the grid-connection point.

v) Erection/installation, of the solar PV plant along with associated system including transmission line and its termination at the suitable grid point.

vi) All associated civil engineering works like:

1) Site grading, filling, leveling, compaction as required, for 1MWp Solar PV plant .

2) Construction of foundation & mounting structures for SPV panels, fencing of SPV plant and construction of roads, if required and beautification of the sides.

3) Construction of office cum control room.

4) Arrangement for alternate permanent water supply for module washing.

vii) Integrated microprocessor based SCADA with required software & hardware for control & monitoring of SPV plant as per best standards.

ix) All associated electrical works required for interfacing at 22 KV/433 line (i.e transformer, breakers, isolators, LA, HT/LT switchgears, protection systems, cables, metering, earthing etc,) as per proposed scheme duly approved.

x) Design, supply, erection, commissioning & testing of 22 KV/433 line cabling & associated equipment for connecting into 22/433 KV switchyard as per technical specification.

xi) **The project will be executed on basis of BOOT (build-own-operate-transfer) method for a period of 10 years and entire product should carry a warranty of 25 years guaranteed efficiency and output not reducing below 80%.**

xii) **The design should be such that Solar PV plant should tolerate maximum vibration since the area is vulnerable to Vibration.**

SECTION – II

2.1 PRE QUALIFICATION REQUIREMENT FOR APPLICANTS IN THE EOI

The applicant shall meet the qualifying requirement as under and general criteria. The applicant / its collaborator, as applicable, should have adequate technical expertise in the area of structural design as per applicable codes and standards in solar/ power/ steel/ oil industries.

a) The applicant/ its collaborator should have designed, supplied, erected/supervised erection and commissioned/supervised commissioning of SPV-based grid connected power plants of cumulative installed capacity of 1MW or above, out of which at least one plant should be of 1MWp or above.

OR

b) The Applicant/its collaborator shall be an EPC Contractor with capability of executing turnkey solution for engineering, procurement, supply, installation, testing and Commissioning of large scale grid connected solar PV-based power plants and having executed at least one project rated minimum 1MWp which has been running successfully for a period of minimum one year as on the date of opening.

GENERAL CRITERIA

The applicant should not have been black listed/debarred /disqualified by any Govt. entity or any International Agency for non-delivery or non-compliance or Corrupt / fraudulent practices. The applicant should give self-declaration

SECTION – III

EOI SCHEDULE

3.1 Expression of Interest Details

1	Name of Assignment	Design, Engineering, Supply, Installation, Testing & Commissioning of 1 MWp Solar Power Plant at IITM Campus, Pune.
2	Method of Selection	Pre- Qualification Criteria

3.2 Important Dates

Sl No	Particulars	Date & Time	Address :
1	Last Date for Submission of EOI	24/07/2013 1300 Hrs	Bids to be submitted on or before the mentioned time and date at “DISPATCH SECTION” Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, NCL post, Pashan Pune – 411008 .INDIA
2	Opening of Pre-qualification Bids for technical presentation	24/07/2013. 1500 Hrs	

INSTRUCTIONS TO APPLICANTS FOR FORMULATION AND SUBMISSION OF PROPOSALS.

- 1) The instruction mentioned should be read carefully by applicant before submitting the offer.
- 2) Only those applicants who meet the pre qualification criteria are eligible to Participate in the EOI process.
- 3) Authority may ask for clarification or further information to evaluate the expression of interest.
- 4) If any information sought in these documents is missing or not clearly specified by the vendor, it will be assumed that the organization is not in a position to supply the information and may be considered as unresponsive.

5) Please note that all the pages of EOI documents should be signed with date and the seal of the applicant should be kept near the signature of the authorized signatories of all the pages.

6) EOI shall contain:

i) The complete technical specification of 01 MW Solar Power Plant which includes

- Design details & layout arrangement of solar Modules and other Components.
- Module mounting structure
- Synchronizing equipment & scheme
- Control & protection scheme
- Scheme & layout of power distribution network
- Integration of PV power with grid
- Reactive power supplying capability of Inverter
- Behavior during system disturbance
- Evacuation scheme & range of load power factor
- Metering scheme
- Communication interface & SCADA / updated technology

ii) BOQ list without prices.

ii) The applicant shall indicate the estimated solar energy generation per annum by the solar power plant proposed by them.

iii) The applicant shall also indicate the requirement of Auxiliary power to run the Plant.

EOI shall also contain details on the competency of the applicant and also the EOI package with terms & condition of implementation of the proposed plant.

In short, the EOI shall contain all the necessary documents to prove the technical competency and capability of the applicant for implementing the solar plant and the ability of the applicant for providing efficient service and support to the satisfaction of Authority.

7) The applicants are also advised to keep on visiting the websites (www.tropmet.res.in) for any Notification / Amendment / Addendum / Corrigendum in respect of this EOI.

No such Notification / Amendment / Addendum / Corrigendum shall be published in newspapers.

8) Downloading of documents can be done in Institute website.

9) IITM shall not be responsible in any way for any delay/ difficulties/ inaccessibility of the downloading facility from the website for any reason whatsoever.

10) IITM reserves the right to reject any or all the tenders or to split up and award the tender to more than one tenderer without assigning any reason thereof.

11) In case of any discrepancies found between the downloaded EOI documents from the website and the master copy available in the website www.tropmet.res.in the latter shall prevail.

12) Applicants will be solely responsible for the correctness/genuineness of the downloaded EOI documents from the website. If the offer submitted through the downloaded EOI documents is incomplete, or with changed contents, the offer will summarily be rejected.

13) For any future correspondence applicants may send their e-mail to jnanesh@tropmet.res.in

14) No EOI document shall be entertained after the due date and time, under any circumstances.

15) The covering letter to be submitted by the applicant along with EOI should be as per format given in this document.

16) The decision regarding short listing /selection of solution on service provider shall lie with the authority and shall be final.

17) The General terms and Conditions, etc will be intimated to the short listed applicants as a part of EOI document.

18) Further clarification could be obtained from the office “Indian Institute of Tropical Meteorology (IITM), Dr. Homi Bhabha Road, Pashan Pune-411008, INDIA”.

APPLICATION FORM

- 1) Name of the Applicant
- 2) Full address (Registered Office)
- 3) Name of the contact person(mobile number with email ID)
- 4) Type of the organization.
(Public Sector/Limited/Private Limited
Partnership/Proprietary /Society/Others.)
- 5) Chief of the organization
- 6) Registration details (Enclosed certificates).
- 7) PAN No (Enclosed certificates),
- 8) Service Tax, EPF & VAT Registration (Enclosed certificates),
- 9) Activities of the Company
- 10) Documents as mentioned in the pre-qualification requirement
- 11) List of clients
- 12) Turn over of the last 3 financial years
- 13) Total No. of employees
- 14) No. of Offices/Centers.
- 15) List of similar projects handled during the last 5 years (Name of the clients, contact person, address in Telephone No. , Title of the Project, Cost of the Project, Duration of the Project, Technology used, brief statement how their requirements are similar to those in this proposal, date of implementation/completion.)
- 16) Project implementation/completion certificates from the Customers as being requested in this proposal .

17) Copy of Certifications (ISO or equivalent) if any.

18) Any other information the applicant wants to furnish - Pl mention the nature of information here and the corresponding Annex. No.

DECLARATION

I/we here declare that the above information is true to best of knowledge of my knowledge.

Place Signature with name & Seal

Date.

Annexure II

CHECK LIST FOR SUBMISSION OF EXPRESSION OF INTEREST

Applicants should ensure that the following are submitted with documentary evidences, while submitting completed application forms. : -

- 1) Letter of submission of EOI (Annexure-III)
- 2) Details as per application format (Annexure I)
- 3) Copy of registration certificate.
- 4) Copy of the PAN Card.
- 5) Audited Account of last 3 years.
- 6) Copy of Service Tax Registration.
- 7) Copy of VAT Registration.
- 8) Copy of EPF Registration.
- 9) Documents as mentioned in the pre-qualification requirement.
- 10) ISO Certificate if applicable.
- 11) List of activities of the Applicant firm and of collaborator firm, if applicable.
- 12) List of clients for supply (applicable for manufacturer firm).
- 13) List of clients for solar projects in India.
- 14) List of similar projects handled during last 5 years.
- 15) Detailed technical write-up of two projects of nearest capacity to the one under consideration (1MWp) as executed by the applicant/ collaborator, as the case may be, mentioning the technical details of each component used including PV modules.

LETTER FOR SUBMISSION OF EOI

**To,
The Director,
Indian Institute of Tropical
Meteorology (IITM),
Dr. Homi Bhabha Road, Pashan,
Pune-411008, INDIA.**

Sub: EOI for Design, Engineering, supply, installation, testing & commissioning of 01 MWp Solar Power plant.

Dear Sir,

We express our interest to participate in the bidding process for 01 MWp solar power project and we hereby confirm the following:

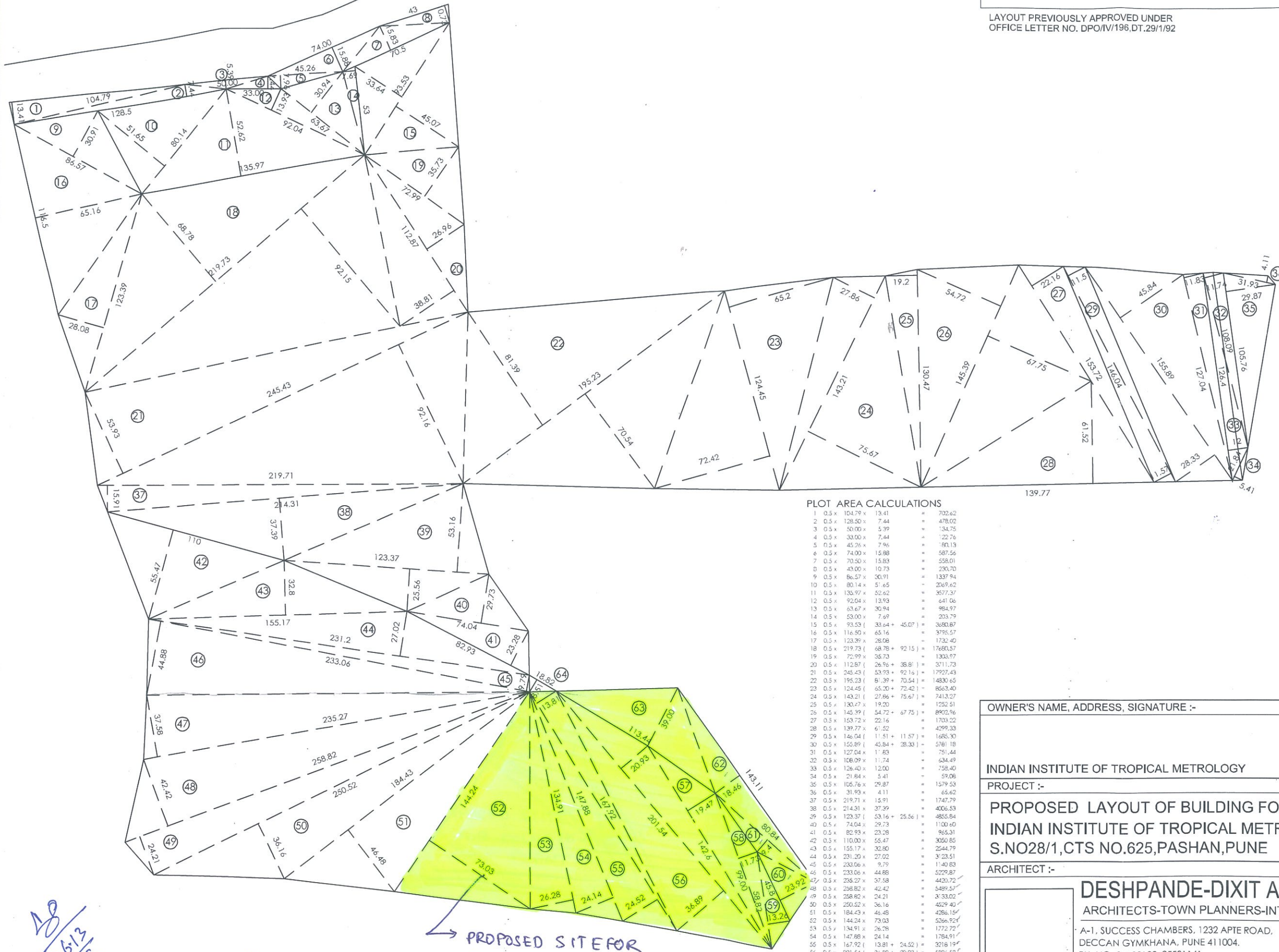
- 1) The EOI application is being submitted by (Name of the bidding Company) for selection as the turnkey solution provider in accordance with the requirements stipulated in EOI document.
- 2) We have examined in detail and have understood and will abide by all the terms and conditions stipulated in the EOI documents issued by IITM. Our application is consistent with all the requirements stated in the EOI documents.
- 3) The information submitted in our application is complete, is strictly as per the requirements as stipulated in the EOI document, and is correct to the best of our knowledge and understanding. We shall be solely responsible for any errors or omission or misrepresentation in our bid.

Place

Date.

Signature with name & Seal

LAYOUT PREVIOUSLY APPROVED UNDER
OFFICE LETTER NO. DPO/IV/196,DT.29/1/92



PLOT AREA CALCULATIONS

1	0.5 x 104.79 x 13.41	=	702.62
2	0.5 x 128.50 x 7.44	=	478.02
3	0.5 x 50.00 x 5.39	=	134.75
4	0.5 x 33.00 x 7.44	=	122.76
5	0.5 x 45.26 x 7.96	=	180.13
6	0.5 x 74.00 x 15.88	=	587.56
7	0.5 x 70.50 x 15.83	=	558.01
8	0.5 x 43.00 x 19.73	=	230.70
9	0.5 x 86.57 x 30.91	=	1337.94
10	0.5 x 80.14 x 51.45	=	2049.62
11	0.5 x 135.97 x 52.62	=	3577.37
12	0.5 x 92.04 x 13.93	=	641.06
13	0.5 x 63.67 x 30.94	=	984.97
14	0.5 x 53.00 x 7.49	=	203.79
15	0.5 x 93.53 (33.64 + 45.07)	=	3680.87
16	0.5 x 116.50 x 65.16	=	3795.57
17	0.5 x 123.39 x 28.08	=	1732.40
18	0.5 x 219.73 (68.78 + 92.15)	=	17680.57
19	0.5 x 72.99 x 36.73	=	1303.97
20	0.5 x 112.87 (26.96 + 38.81)	=	3711.73
21	0.5 x 245.43 (53.93 + 92.16)	=	17927.43
22	0.5 x 195.23 (81.39 + 70.54)	=	14830.65
23	0.5 x 124.45 (65.50 + 72.42)	=	8853.40
24	0.5 x 143.21 (27.86 + 75.67)	=	7413.27
25	0.5 x 130.47 x 19.20	=	1252.51
26	0.5 x 145.39 (54.72 + 67.75)	=	8902.96
27	0.5 x 153.72 x 22.16	=	1703.22
28	0.5 x 139.77 x 61.52	=	4299.33
29	0.5 x 146.04 (11.51 + 11.57)	=	1686.30
30	0.5 x 155.89 (45.84 + 28.33)	=	5761.18
31	0.5 x 127.04 x 11.83	=	751.44
32	0.5 x 106.09 x 11.74	=	634.49
33	0.5 x 126.40 x 12.00	=	758.40
34	0.5 x 21.84 x 5.41	=	59.08
35	0.5 x 106.76 x 29.87	=	1579.53
36	0.5 x 31.93 x 4.11	=	65.62
37	0.5 x 219.71 x 15.91	=	1747.79
38	0.5 x 214.31 x 27.39	=	4026.53
39	0.5 x 123.37 (53.16 + 25.56)	=	3855.84
40	0.5 x 74.04 x 29.23	=	1100.40
41	0.5 x 82.93 x 23.28	=	965.31
42	0.5 x 110.00 x 55.47	=	3050.85
43	0.5 x 155.17 x 32.80	=	2544.79
44	0.5 x 231.20 x 27.02	=	3123.51
45	0.5 x 233.06 x 9.79	=	1140.83
46	0.5 x 233.06 x 44.88	=	5229.87
47	0.5 x 236.27 x 37.58	=	4420.72
48	0.5 x 258.82 x 42.42	=	5489.54
49	0.5 x 258.82 x 24.21	=	3133.02
50	0.5 x 250.52 x 36.16	=	4529.40
51	0.5 x 184.43 x 46.48	=	4286.15
52	0.5 x 144.24 x 73.03	=	5266.92
53	0.5 x 134.91 x 26.28	=	1772.75
54	0.5 x 147.88 x 24.14	=	1784.91
55	0.5 x 167.92 (13.81 + 24.52)	=	3216.19
56	0.5 x 201.54 (36.89 + 20.93)	=	5826.52
57	0.5 x 142.40 x 19.47	=	1388.21
58	0.5 x 99.00 x 11.73	=	580.64
59	0.5 x 58.62 x 13.26	=	389.98
60	0.5 x 45.80 x 23.92	=	547.77
61	0.5 x 80.84 x 9.40	=	379.95
62	0.5 x 143.11 x 18.46	=	1300.91
63	0.5 x 113.44 x 39.00	=	2212.08
64	0.5 x 18.62 x 8.51	=	80.08
TOTAL		=	194315.84

PROPOSED SITE FOR
SOLAR POWER PLANT

18.6.13
AE

Stamp
18/06/13
CE

OWNER'S NAME, ADDRESS, SIGNATURE :-

INDIAN INSTITUTE OF TROPICAL METROLOGY

PROJECT :-

PROPOSED LAYOUT OF BUILDING FOR
INDIAN INSTITUTE OF TROPICAL METROLOGY
S.NO28/1,CTS NO.625,PASHAN,PUNE

ARCHITECT :-

DESHPANDE-DIXIT ASSOCIATES
ARCHITECTS-TOWN PLANNERS-INTERIOR DESIGNERS

A-1, SUCCESS CHAMBERS, 1232 APTE ROAD,
DECCAN GYMKHANA, PUNE 411004.
PH. NO. 25532182, 25531141,
FAX. NO.-020-5532325

AR.JAGADISH P. DESHPANDE
C.A. REGD. NO. - 84/8313

DATE	DEALT BY	REVISED BY	CHECKED BY	SCALE
28.3.09	RAJASHREE K.			1:1000

E:/DATA/machav joshi/ revised layout 20.0.09

LAYOUT PREVIOUSLY APPROVED UNDER OFFICE LETTER NO. DPO/IV/196.DT.29/192 REVISED LAYOUT

AREA CALCULATIONS FOR OPEN SPACE

Table with 4 columns: No., Dimensions, Area, Total. Lists calculations for various open space areas.

AREA CALCULATIONS FOR AMINITY SPACE

Table with 4 columns: No., Dimensions, Area, Total. Lists calculations for various amenity space areas.

AREA UNDER NALA

Table with 4 columns: No., Dimensions, Area, Total. Lists calculations for area under nala.

AREA AS PER 7/12 1,97,400.00 AREA AS PER DEMARCATION 1,94,315.84 MINIMUM AREA CONSIDERED 1,94,315.84

AREA STATEMENT table with columns: AREA STATEMENT, SQM. Lists various area categories and their values.

TENEMENT STATEMENT table with columns: TENEMENTS PERMISSIBLE, TENEMENTS PROPOSED. Shows 3109 permissible and 32 proposed.

CERTIFICATE OF AREA CERTIFIED THAT THE AREA UNDER REFERENCE WAS SURVEYED BY ME AND THE DIM. OF SIDES ETC. OF THE PLOT STATED ON PLAN ARE AS MEASURED ON SITE AND THE AREA SO WORKED OUT TALLIES WITH THE AREA STATED IN THE DOCUMENT OF OWNERSHIP...

LEGEND FLOT LINE SHOWN - BLACK PROPOSED WORK SHOWN - RED DRAINAGE LINE SHOWN - RED DOTTED WATER LINE SHOWN - BLACK DOTTED EMBLING TO BE RETAINED - HATCHED BLUE EXISTING TO BE DEMOLISHED - HATCHED YELLOW

OWNER'S NAME, ADDRESS, SIGNATURE

INDIAN INSTITUTE OF TROPICAL METROLOGY PROJECT: REVISED LAYOUT OF BUILDING FOR INDIAN INSTITUTE OF TROPICAL METROLOGY S.NO.28/1,CTS NO.625,PASHAN,PUNE

ARCHITECT: DESHPANDE-DIXIT ASSOCIATES ARCHITECTS-TOWN PLANNERS-INTERIOR DESIGNERS A-1, S.J.CCESS CHAMBERS, 1232 APTE ROAD DECCAN GYMKHANA, PUNE 411004. PH: NO. 25323182, 25331141. FAX: NO. 020-5532325

Table with columns: DATE, DEALT BY, REVISED BY, CHECKED BY, SCALE. Shows date 17.6.09 and scale 1:3000.

AREA UNDER ROAD

Table with 4 columns: No., Dimensions, Area, Total. Lists calculations for area under road.

AREA STATEMENT table with columns: S.NO., TYPE OF BLDG., ROOM NO., FLOOR, PROPOSED, S.NO., TYPE OF BLDG., FLOOR, PROPOSED. Lists building details.



Handwritten signature 'AP' and date '18.6.13' with 'AF.' below it.

Handwritten signature 'Anup' and date '18/06/13'.

LAYOUT PLAN