



भारतीय उष्णदेशीय मौसम विज्ञान संस्थान
INDIAN INSTITUTE OF TROPICAL METEOROLOGY,
(पृथ्वी विज्ञान मंत्रालय का स्वायत्त संस्थान, भारत सरकार के अधीन)
(An Autonomous Institute of the Ministry of Earth Sciences, Govt. of India)

सं. / No

दिनांक / Date

**ENQUIRY FOR INDIGENOUS SUPPLIERS
AS DETAILED BELOW:**

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

फैक्स : Fax : (020) 25865142 दूरभाष / Telephone : 25904200

डॉ. होमी भाभा मार्ग, पाषाण / Dr. Homi Bhabha Road, Pashan, पुणे / Pune – 411 008 (भारत/India)



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सं. / No

सं. पी. एस. / No. PS/125/142/2011

मेसर्स./ M/s.

दिनांक / Date

दिनांक / Date:

प्रिय महोदय / Dear Sirs,

“दिनांक _____ की पूछताछ से _____ की अनुक्रिया में दिनांक _____ की नवोदित दर सूची,” लिफाफे पर लिखे मुहरबंद निवोदित दर सूची निम्नलिखित भण्डारों की आपूर्ति के लिए संस्थान दिनांक _____ के 12.00 घंटों तक निर्मित है जिन्हें उसी दिन 15.00 घंटों तक खोला जाएगा।

Quotation in sealed cover superscribed there on Quotation due on **13/03/2012** response to Enquiry No. **PS/125/144/2011** dated **06/02/2012** are invited for the supply of under-mentioned stores so as to reach this institute latest by 12-00 hours on **13/03/2012** which will be opened on the same day at 15-00 hours.

सामान्यतः खोलने के दिनांक से कम से कम 180 दिनों की अवधि तक यह निवेदित दरसूची वैध रहेगी।

The quotation shall normally remain *valid for a minimum period of 180 days from the date of opening*

इस पष्ठ की दूसरी और छपे अनुदेबजों को ध्यान में रख कर निवोदित दरसूची भरी जाएगी।

The quotation shall be filled in with the consideration to the instruction printed overleaf.

क्रम सं. Sr. No.	भण्डार का विवरण Description of Stores	इकाई Unit	मात्रा Quantity
01	Supply & Installation of Net Radiometer (With Separate Shortwave & Longwave Component) Specifications: As per the Enclosure	Sets	05

Note:- (1) Enquiry Letter No. and due date should be mentioned on the top of envelop.
(2) The Technical Literature should be enclosed along with the quotation.

एस.टी./सी.एस.टी./आदि के लिए संस्थान
कोई रियाती फार्म नहीं दे सकता।
This Institute is unable to furnish any
Concessional form for S.T / C.S.T. / etc.

भवदिय/ Yours faithfully,

(V. R. Mali)
Senior Technical Officer - II
for Director

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

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निविदा प्रस्ताव के लिये अनुदेश / INSTRUCTIONS TO TENDER

- नियत तारीख के बाद प्राप्त दर सूची पर विचार नहीं किया जाएगा।
Quotation received after the due date will not be considered.
- दर सूची सुवाच्य रूप में भरी जानी चाहिये और शब्दों पर शब्द /सुधार, काटछांट विलोपन यदि हो तो उनको सटीक अनुप्रमाणित करना चाहिये और आपके शीर्षपत्र पर होना चाहिए।
Quotation must be filled in legibly and overwriting/corrections, erasures etc. if any, must be duly attested, and ON YOUR LETTER HEAD ONLY.
- पूछताछ पत्र में बताई इकायों के अनुसार दर सूचित किया जाना चाहिये। विशेष रूप से उल्लिखित इकाइयों से अलग इकाइयों पर यदि दर बताई जा रही है तो इन इकायों के सम्बन्ध का विवरण दिया जाएगा।
The rates shall quoted according to the units indicated in the enquiry letter. When the rates are quoted in units different from those specified, the relation between the units shall be furnished.
- निवोदित भण्डार अधिमाम्य रूप से तत्सम्बन्धित भारतीय मानक विनिर्देश के अनुसार होना चाहिए।
The Stores offered shall preferably be according to the relevant Indian Standard Specification.
- निवोदित दर सूची में सुपूर्दगी की सही अवधि तथा सुपूर्दगी की शर्तें बताई जानी चाहिए।
The exact delivery period and terms of delivery shall invariably be mentioned in the quotation.
- “पाषाण में इस संस्थान भवन से सुपूर्दगी। (स्थानिक फर्मों के लिए) और “एफ ओ आर पुणे” (बाहर गांव के फर्मों के लिए) सुपूर्दगी” के आधार पर निवेदित दरों को वरीय माना जाएगा।
preference shall be given to rates quoted as delivery at this Institute premises at Pashan (for local firms) and as FOR Pune (for outstation firms)
- दरों में वरीय रूप से सब प्रभार कर झुटी आदि में समाविष्ट करना चाहिए साथ ही इन प्रभारों को सुस्पष्ट और पृतक दिखाया जाना चाहिए।
The rates preferably include all charges, taxes, duties etc., also these charges shall be shown distinctly and separately.
- विक्री कर की रियायत दर के लिए फार्म (डी) या फार्म (ए.एफ.) जो भी उपयुक्त है वह संस्थान दे नहीं सकेगा।
The Institute will not be in position to furnish form (D) or form (AF) as the case may be for concessional rate of Sales Tax
- रकम का भुगतान ३० दिनों के अंदर किया जाएगा।
Payment will be made within 30 days.
- पूर्ति के आदेश जारी किये जाने के बाद आदेश में दर्शायी गयी-अवधि तक पूरी सुपूर्दगी की जानी चाहिए। रद्द सामग्री को बदलने में असफल होने पर आदेश बिना पूर्व सूचना से रद्द किया जा सकता है, और आगे जोखिम और लागत पर अन्य स्थान से सामग्री प्राप्त की जायेगी।
An order for supply when placed, must be completed in full within the delivery period indicated on the order. Failure to supply or replace the rejected materials if any, will render the order liable to be cancelled without notice and the material will be procured elsewhere at your risks and cost.
- ऊपर बताए अनुदेशों को पूर्ति न करनेवाली दर सूचियों पर विचार नहीं किया जाएगा।
Quotations, not fulfilling the above instructions, are not likely to be considered.
- किसी निविदा दर सूची या उसके अंश को कारण नहीं बताते हुए स्वीकृत अथवा अस्वीकृत करने का संस्थान अधिकार रखता है।
The Institute reserves the right to accept or reject any quotation or part thereof without assigning any reason there of.
- प्रतिभूति पूर्तिकर्ता यह प्रतिभूति १२ महिनो की अवधि के लिए देगा कि पूर्ति के किये जानेवाले माल, कारीगरी, माल और विनिर्माण की सब त्रुटियाँ और दोषों से मुक्त हो, उच्च कोटि के हो और संस्थापित और सामान्य रूप से स्वीकृत मानको के साथ मिलते हो, विशेष विवरण की पुष्टी करते हो और यदि प्रचलित होते हो तो सटीक ढंग से प्रचलित होना चाहिए।
Warranty : The supplier shall give a warranty for a period of 12 months to the effect that the materials supplied shall free from all defects and faults in material, workmanship and manufacture shall be of the highest grade and consistant with the established and generally accepted standards shall be inconfirmatory with the specifications and shall be if operable operate properly.



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-3-

नियम और शर्तें (ज़ारी)

Terms and Conditions (contd.)

14. दर पत्र में निम्नांकित बातों के संदर्भ में स्पष्ट जानकारी दी जानी आवश्यक है जैसे कि यूनिट कीमत, विक्री कर, परिवहन, संक्रमणकालीन बीमा, स्थापित करने का खर्च और एक वर्ष की उसी जगह की वॉरंटी। विक्री कर में कोई माफी या छूट मिलने के बारे में संस्थान कोई प्रमाणपत्र जारी नहीं करेगा। अपूरी जानकारी देनेवाले दरपत्रोंके बारे में कोई विचार नहीं किया जाएगा तथा रद्द किया जायेगा।
Quotations must clearly indicate the features offered Unit Price[Sales Tax, Transport, Transit Insurance, Installation charges and one year on-site warranty. Institute cannot furnish any certificate for exemption or reduction in Sales Tax etc. Incomplete Quotation will not be considered and rejected.
15. अग्रिम का भुगतान नहीं किया जाएगा।
No advance can be paid.
16. केन्द्रीय उत्पाद शुल्क कर के वेतन से संस्थान को छूट प्राप्त हुई और अगर आवश्यक हो तो, अनुरोध पर विमोचन प्रमाणपत्र जारी किया जायेगा।
Institute is exempted from the payment of Central Excise duty and exemption certificate will be issued on requested, if required.
17. अगर कोई ऑक्ट्रॉय कर का भुगतान हो तो, उसका कृपया अलग उल्लेख किया जाए।
Octroi payment if any, the same may please be shown separately.
18. भुगतान नियम निम्न प्रकार से है :-
Payment terms will be as follows :
i) सन्तोषजनक प्रतिष्ठापना के बाद **90%** भुगतान।
90% Payment after satisfactory installation.
ii) राष्ट्रीयकृत बैंक द्वारा बैंक गारंटी का प्रत्यक्ष क्रियान्वयन होने के पश्चात् **10%** का भुगतान होगा, यह वॉरंटी अवधि के समापन तक लागू रहेगी, जिसकी अवधि बढ़ाई जा सकती है।
10% Payment after execution of Bank Guarantee from a Nationalised Bank which will be valid till the expiry of warranty period including extension if any.
19. उपकरण स्थापित करने के पश्चात् स्वीकृति की सभी मानके जाँच पड़ताल की जाएगी। स्वीकृति के ऐसे परीक्षण पूरे हो जाने के बाद ही संबंधित उपकरण का स्वीकार किया जायेगा।
All standard acceptance tests will be carried out after installation the equipment will be taken over only after successful completion of acceptance tests.
20. उसकी कीमत स्थिर और अपरिवर्तनीय होनी चाहिए और उसमें कच्चा माल और घटकों की लागत में वृद्धि होने पर या रूपया-विदेशी मुद्रा के विनिमय दर में बदलाव आने पर भी कोई परिवर्तन नहीं होगा।
The price should be firm and irrevocable and not subject to any change whatsoever, even due to increase in the cost of raw materials and components and Rupee-foreign exchange conversion rate.
21. उपकरण प्राप्त होने के पश्चात् एक महिने की अवधि में स्थापना प्रक्रिया पूरी होनी चाहिए।
The installation process should be completed within one month from the date of delivery.
22. Delivery: The Equipments are required for IITM, Pune and to be installed anywhere in India at different locations (Exact locations will be intimated in due course). Accordingly, cost may be quoted separately.

(V. R. Mali)
Senior Technical Officer-II
For Director

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

फैक्स : Fax : (020) 25865142 दूरभाष / Telephone : 25904200

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दिनांक / Date

-4-

(Enclosure to Enquiry Letter No. PS/125/142/2011 dated 06.02.2012)

Specifications of "Net Radiometer (With Separate Shortwave & Longwave Component)" – Qty 05 Sets

Technical Specification:

The net radiometer sensor should provide highly accurate measurements (traceable to WMO standards) of four components of radiation: incoming and reflected shortwave and incoming and outgoing longwave radiation. The sensor should consist of a pair of pyranometers and a pair of pyrgeometer housed in a single unit to provide separate measurements of the above four components of radiation.

The spectral range of measurement should be approximately 0.3 to 40 μm , covering both short-wave and long-wave radiation spectrum.

Should have an accurate temperature sensor to correct infrared radiation readings for the temperature of the instrument housing.

Specifications of the Pyranometer and pyrgeometer sensors in the net radiometer should be as given below:

Pyranometer

- Spectral range: approximately 300 to 2800 nm
- Sensitivity: 10 to 20 $\mu\text{V}/\text{W}/\text{m}^2$
- Response time : < 20 seconds
- Temperature dependence of sensitivity: < 4%
- Directional error: < 20 W/m^2 at angle up to 80° with 1000 W/m^2
- Maximum solar irradiance: 2000 W/m^2
- Uncertainty in daily total: < 5%

Pyrgeometer

- Spectral range: 4.5 μm to 42 μm
- Sensitivity: 5 to 15 $\mu\text{V}/\text{W}/\text{m}^2$
- Response time: < 20 seconds
- Zero offset due to temperature change: $\pm 4 \text{ W}/\text{m}^2$
- Uncertainty in daily total: < 10%

The sensor should have a built-in ventilation unit.

Measurements should not require corrections for wind.

Operating temperature should be in the range – 20 °C to +60 °C and RH: 0 – 100%

Should include mounting kit to install sensor on a tower cross-arm, and basic spares kit.

Should provide calibration sheets, software, manuals, and necessary cables to connect to datalogger; Cable length should be as follows:

2 sensors: 120 ft. 3 sensors: 60 ft.

Warranty: One year

Optional: CMC for next two year after the warranty period

(V.R. Mali)
Senior Technical Officer-II
For Director

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

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**ENQUIRY FOR FOREIGN SUPPLIERS
AS DETAILED BELOW:**

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE
फैक्स : Fax : (020) 25865142 दूरभाष / Telephone : 25904200
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सं. / No

File No. PS/125/142/2011

दिनांक / Date

Date:

Dear Sir,

We are interested in procurement of the following items. You are, therefore, requested kindly to submit your Quotation / Pro-forma Invoice in triplicate so as to reach this Institute on or before **13 March 2012 up to 12:00 hrs.** which will be opened on same day at **15:00 hrs.** The envelope should be super scribed "Enquiry Number PS/125/144/2011 due on **13 March 2012 up to 12:00 hrs**".

Sr. No.	Description of Stores	Unit	Quantity
01	Supply & Installation of Net Radiometer (With Separate Shortwave & Longwave Component) Specifications: As per the Enclosure	Sets	05

The proforma invoice shall indicate the following information and also accompany relevant technical literature.

1. FOB / FCA value including packing, forwarding and inland freight charges.
2. C&F / CIF Mumbai (INDIA) value by airfreight.
3. Please indicate the name & address of your Indian agent. Please also indicate the amount of agency commission payable to him in Indian currency after the receipt of the consignments in good condition at our Stores and in case of equipment after the satisfactory installation & commissioning. Indian Foreign Exchange & Regulations Act do not permit the inclusion of Indian agency commission, discount or like rebates allowed by foreign suppliers in FOB value, payable to their Indian agents. Such commission, discount etc., if any, must be indicated separately in your offer;
4. Indicate the names of the Indian reputed organizations where you have supplied the similar equipment and may attach the satisfactory performance report of the equipment from users;
5. If you have supplied identical or similar equipment to other Govt. Organization CSIR/Labs/Institute., the details of such supplies for the preceding three years should be given together with the prices eventually or finally paid;
6. Fax/e-mail tenders will not be considered

P.T.O.

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

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- 2 -

7. Please indicate clearly all bank charges (inside & outside India) shall be borne by the supplier/ beneficiary.
8. Details of services to be rendered by you.
9. The offer may be kept valid for minimum period of 180 days.
10. Proprietary Certificate in Original.
11. Country of Origin.
12. Terms & Period of Warranty.
13. Supply Compliance statement as per our technical specifications.
14. 90% payment shall be made by Sight Draft / an Irrevocable Letter of Credit established in favour of the supplier through the State Bank of India, Main Branch, Camp, Pune 411 001 (India) for the order value, excluding the Agency Commission due to the Indian Agents, against the presentation of original Shipping documents, balance 10% payment shall be released after completion of satisfactory installation, commissioning, demonstration of the whole system, after imparting training and upon receipt of Bank Guarantee from Indian nationalized bank for 10% of total Order value towards performance bank guarantee to be valid for one year from the date of installation. However Letter of Credit/Sight Draft arrangement will be made for 100% order value. The Agency Commission to the Indian Agent will be paid only after successful installation, commissioning and satisfactory demonstration and acceptance of the items ordered for by the end user.
15. Delivery: The Equipments are required for IITM, Pune and to be installed anywhere in India at different locations (Exact locations will be intimated in due course). Accordingly, cost may be quoted separately.

We prefer to release the payment on Bill basis (excluding Indian agency commission) after the receipt of consignment in good condition. Alternatively, depending upon the value and foreign exchange regulations the payment can also be considered through Sight Draft/Letter of Credit through the State Bank of India for the order value excluding the Indian agency commission.

The payment shall be made by way of Letter of Credit through the State Bank of India, Pune - 411 001 (INDIA) excluding the Indian Agency Commission which shall be paid directly to Indian Agents in Indian rupees after receipt of materials in sound condition. Insurance shall be arranged by us if the mode of dispatch is air-freight.

Thanking you,

Yours faithfully,

(V. R. MALI)
Senior Technical Officer-II
For Director

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

फैक्स : Fax : (020) 25865142 दूरभाष / Telephone : 25904200

डॉ. होमी भाभा मार्ग, पाषाण / Dr. Homi Bhabha Road, Pashan, पुणे / Pune – 411 008 (भारत/India)



भारतीय उष्णदेशीय मौसम विज्ञान संस्थान
INDIAN INSTITUTE OF TROPICAL METEOROLOGY,
(पृथ्वी विज्ञान मंत्रालय का स्वायत्त संस्थान, भारत सरकार के अधीन)
(An Autonomous Institute of the Ministry of Earth Sciences, Govt. of India)

सं. / No

दिनांक / Date

- 3 -

(Enclosure to Enquiry Letter No. PS/125/142/2011 dated 06.02.2012)

Specifications of “Net Radiometer (With Separate Shortwave & Longwave Component)” – Qty 05 Sets

Technical Specification:

The net radiometer sensor should provide highly accurate measurements (traceable to WMO standards) of four components of radiation: incoming and reflected shortwave and incoming and outgoing longwave radiation. The sensor should consist of a pair of pyranometers and a pair of pyrgeometer housed in a single unit to provide separate measurements of the above four components of radiation.

The spectral range of measurement should be approximately 0.3 to 40 μm , covering both short-wave and long-wave radiation spectrum.

Should have an accurate temperature sensor to correct infrared radiation readings for the temperature of the instrument housing.

Specifications of the Pyranometer and pyrgeometer sensors in the net radiometer should be as given below:

Pyranometer

Spectral range: approximately 300 to 2800 nm
Sensitivity: 10 to 20 $\mu\text{V/W/m}^2$
Response time : < 20 seconds
Temperature dependence of sensitivity: < 4%
Directional error: < 20 W/m² at angle up to 80° with 1000 W/m²
Maximum solar irradiance: 2000 W/m²
Uncertainty in daily total: < 5%

Pyrgeometer

Spectral range: 4.5 μm to 42 μm
Sensitivity: 5 to 15 $\mu\text{V/W/m}^2$
Response time: < 20 seconds
Zero offset due to temperature change: $\pm 4 \text{ W/m}^2$
Uncertainty in daily total: < 10%

The sensor should have a built-in ventilation unit.

Measurements should not require corrections for wind.

Operating temperature should be in the range – 20 °C to +60 °C and RH: 0 – 100%

Should include mounting kit to install sensor on a tower cross-arm, and basic spares kit.

Should provide calibration sheets, software, manuals, and necessary cables to connect to datalogger; Cable length should be as follows:

2 sensors: 120 ft. 3 sensors: 60 ft.

Warranty: One year

Optional: CMC for next two year after the warranty period

(V. R. MALI)
Senior Technical Officer-II
For Director

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

फैक्स : Fax : (020) 25865142 दूरभाष / Telephone : 25904200

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