



## CSIR - NATIONAL PHYSICAL LABORATORY

(Council of Scientific & Industrial Research)

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**From:** Director, CSIR-NPL

**Ref. No.:** 14-VII/R (2384)13-PB/PIC

Dt: .....

Dear Sirs,

### **Sub.: INVITATION FOR PRE-INDENT CONFERENCE –Intimation Regarding**

National Physical Laboratory (NPL), a premier R&D unit of Council of Scientific & Industrial Research, intends to procure a “**Raman Lidar for atmospheric aerosol and cloud interaction studies**” for understanding the aerosol-cloud interactions and long range transport of aerosols over the Himalayan and Indo Gangetic regions (as per pointer advertisement placed at **Annexure -II**).

In this regard, a **Pre-Indent Conference (PIC)** is being organized to finalize the broad technical specifications of the required system(s) as mentioned above. Prospective OEMs or their Authorized Distributors, System Integrators having specialization and experience of such installations and their maintenance thereof are invited to make presentations followed by discussions on technology, design, features, utility, technical parameters and other related Techno-commercial issues. The credentials, technical capability, financial standing & track record of vendors, will be evaluated, based upon PIC discussions and documents submitted by the interested parties. For this purpose brief details and purpose of requisite equipment is enclosed at **Annexure –I**.

Further the detailed scope of PIC and other conditions can be seen on NPL website: <http://www.nplindia.org> under “Tenders/Pre-Indent” → “Pre-Indent Conference Notifications” link. Parties willing to participate must send a formal communication to Controller of Stores & Purchase (emails: [cosp@nplindia.org](mailto:cosp@nplindia.org) / [spo@nplindia.org](mailto:spo@nplindia.org)), in advance. The schedule for PIC will be as follows (as per pointer advertisement placed at Annexure -II):

**Date & time of PIC: 21.06.2013 at 10.30 AM (IST) onwards.**

**Venue:** Conference Room, 2<sup>nd</sup> Floor, Main Building, CSIR-NPL, New Delhi -110012.

*Interested parties willing to take part in the above said PIC are requested to submit the documents to prove their Technical Capabilities, Client List, Financial Capabilities, Experience and Credentials at the time of attending of PIC along with Vendor Registration Form as per Annexure -III. A Line of confirmation in this regard may be sent.*

Thanking you,

**Yours Faithfully,**

Encl: A/A

**(Tariq Badar)**  
**Controller of Stores & Purchase**

**Ref. No.: 14-VII/R (2384)13-PB/PIC**

CSIR-NPL intends to procure a Raman Lidar which could work in the Himalayan Environment and should have provision for downloading the acquired data at CSIR-NPL, New Delhi

**Transmitter:**

Source: Diode pumped solid state Nd:YAG laser

Wavelength: 355 nm

Output pulse energy: >1mJ per pulse

Stability of transmitted energy:  $\pm 2\%$

Pulse repetition frequency (PRF): 50 Hz-20KHz

**Receiver:**

Detection: (a) Parallel and cross polarized channels at 355 nm wavelength for depolarization measurement. It should have capability for both analog and photon counting detections.

(b) Nitrogen Raman channel at 387 nm

(c) Fully computer controlled system with the facility to download the acquired data at CSIR-NPL, New Delhi

Telescope: (a) Type: Cassegrain

(b) Diameter: More than 15 cm

(c) Field of view: <1mRad

Measurement Height: 0-15 km

Range resolution: 15m to 60m (selectable)

**Electrical specifications:**

Operating voltage:  $220 \pm 2\%$  V A.C, 50 Hz

Provision of Solar panel for alternate power supply

**Should work in the :**

- Should be able to work in Himalayan region
- Capability for operation in rain and snow also
- Suitable for Day/Night operation
- Should have provision for mounting on mobile platform also.

**Data Acquisition System and Software:**

Workstation for control and processing the data with Core I7, 8GB RAM, 2TB Hard Disk or better preferably Windows based. Software for offline processing of data for all channels. Signal calibration and filtering of noise. Real time visualisation of time height display. Capability for deriving depolarization, backscatter/extinction coefficient, Lidar ratio, aerosol optical depth, planetary boundary layer measurement, Cloud/dust base and layer height determination.

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### PRE -INDENT CONFERENCE NOTICE No: 06/2013

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Sd/-  
(Controller of Stores & Purchase)

## **VENDOR'S INFORMATION FORM**

*[The interested party shall fill in this form and should submit at the time of attending PIC. This should be done on the letter head of the firm]*

1. Vendor's Legal Name :

2. Vendor's actual or intended Country of Registration :

3. Vendor's Legal Address in Country of Registration :

4. Vendor's Authorization Representative Information

Name :

Address :

Telephone/Fax numbers:

Email Address :