



ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

OIL INDIA LIMITED
(A Govt. of India Enterprise)
P.O.: Udayan Vihar
Guwahati-781171

NOTICE INVITING EXPRESSION OF INTEREST (EOI)

LAST DATE OF SUBMISSION: 15:00 HRS (IST) on 18.09.2023

EXPRESSION OF INTEREST (EOI) FOR TRIAL OF PIPELINE INTRUSION DETECTION SYSTEMS FOR OIL INDIA LIMITED - NAHARKATIYA BARAUNI PIPELINE (NBPL)

Oil India Limited (OIL) is a fully integrated Exploration & Production company, with origin dating back to the year (1889) of oil discovery in India. A MAHARATNA Company, OIL is a state-owned enterprise of the Government of India, under the administrative control of the Ministry of Petroleum and Natural Gas and is the second largest national oil and gas company in India.

NBPL (Naharkatia - Barauni Pipeline) is OIL's 1157 Km long crude oil pipeline which was commissioned in the year 1962-64 and runs through the states of Assam, West Bengal, and Bihar traversing hostile terrains, dense forests, and cuts across 78 Rivers and serves as 'The life line of Oil India Limited'. Since its inception, NBPL has been a fully automated crude oil pipeline serving the demands of downstream refineries. In 2009, OIL INDIA LIMITED commissioned the 660 km long Numaligarh - Siliguri Product Pipeline (NSPL) along the same route to transport refined products. The capacity of NBPL is 8 MMTPA and NSPL is 1.72 MMTPA. Further capacity enhancement of NSPL is presently being undertaken.

OIL has its own Right-of-Way (RoW) from Duliajan in Assam to Barauni in Bihar, most of which is 18 m (60 ft) width. On the same ROW OIL has laid its own OFC and has also allowed two other pipelines GSPL (IOCL - product pipeline) and DNPL (AGCL - natural gas pipeline).

Under the self-reliance "Aatma Nirbhar Bharat Abhiyan" policy of the Government of India, OIL intends to explore, encourage and develop indigenous technology developers for Pipeline Intrusion Detection System (PIDS).

1.0 Background:

1.1 Transportation of large volume petroleum products through Cross Country Pipeline is the safest, most reliable, environment friendly and economical method. It is not possible to provide reliable 24x7 monitoring and surveillance and securing every inch of a hazardous cross-country pipeline infrastructure using existing manual methods like ROW Line Walking.

1.2 “OFC based Pipeline Intrusion Detection System (PIDS)” based on - Distributed Acoustic Sensing (DAS) platform is now implemented in the mid-stream industry in India by various pipeline operators for pipeline safety and security. This optical fiber-based Pipeline Intrusion Detection System can be used for monitoring different types of third-party intrusions such as manual digging, mechanical excavations, etc., from a single location using the existing optical fibre laid alongside the pipeline. This is an early-warning system that can equip the pipeline operator with the ability to immediately respond to potential intrusions, thereby enhancing our possibility to prevent pipeline pilferage or damage. At present this technology is offered by only limited vendors / companies and most of them are non-indigenous vendors / companies or by system integrators wherein the complete equipment / software is sourced from foreign OEMs.

2.0 Proposal:

OIL INDIA LIMITED, PIPELINE SPHERE seeks Expression of Interest (EOI) from reputed indigenous vendors / companies / OEMs for a PIDS trial.

OIL intends to offer an opportunity to indigenous OEM Developer (hereinafter referred to as “Vendor or company”) to carry out trial and demonstration of their DAS System on OIL’s Pipeline. OIL shall offer the facilities required to simulate, test and validate the technology solution provided by the vendor using OIL’s spare optical fiber laid along the cross-country pipeline RoW inside HDPE Duct. The trial shall enable the vendor to collect and process the different activity signatures of threats around the pipelines in a real life scenario and help in customization of their technology. The successful completion of POC shall also help the indigenous vendors in acquiring requisite experience / qualification criteria for future bidding processes in India.

2.1 The scope of the trial shall include:

Scope of work for trial of Pipeline Intrusion Detection System are listed below:

- a) Vendor to provide the complete Pipeline Intrusion Detection System to monitor the intrusion activities along at least one ofc section of the pipeline which may vary from 40 to 70 Km in length. The Pipeline Intrusion Detection System shall consist of all necessary items, associated facilities, auxiliary equipment, systems, programs, and all apparatus that are required to provide a safe and operational system.
- b) Vendor shall engineer, design, transport, install and commission the trial system at the selected section(s). Pipeline Intrusion Detection System shall be a highly sensitive, distributed acoustic sensing system utilizing existing fiber optic cables along the Pipeline Right-of –Way which provides the end users with an automated means of monitoring or measuring activity along the long linear assets.
- c) Trial / test equipment shall be installed at OIL’s existing Pump Station or Repeater

Station and shall be connected to a Centralized Monitoring Room through OIL's available optical link. The Monitoring will be done by physical manning or remotely throughout the trial session.

- d) The trial shall be for a minimum period of 90 (ninety) days after the complete commissioning of the system. Full test reports and signatures collected shall be submitted for evaluation by OIL.
- e) The vendor shall be responsible for carrying out the trial with their equipment at respective and designated location at their own cost and risk.
- f) Upon completion of the trial, Vendor shall dismantle all their equipment and arrange to take it away from OIL's premises.

3.0 Only registered Indian companies, in active existence for minimum last 3 (three) years, possessing substantial and proven record of work in similar field as detailed in Clause 3.2 and having Class-I "Make in India" certificate should respond to this notice. Party which has already executed PIDS for hydrocarbon Pipelines and has proven credentials are not required to apply against this EOI. Vendors / companies are requested, as a minimum, to submit the following documents and details:

3.1 Letter of interest with detailed information as follows:

- a. Name of the indigenous Vendor/company with address, phone & e-mail, website etc.
- b. Details of registration of the company under the Companies Act 2013.
 - i. LLPIN /CIN /1A Ref No.:
 - ii. Company or LLP Name:
 - iii. State:
 - iv. Incorporation Date:
 - v. Company Name Status:
 - vi. Details of registration as a Start-up under Ministry of Commerce and Industry (Department of Industrial Policy and Promotion) as per Notification G.S.R. 364(E), 11th April 2018 under Class-I category.
Certified copy of the Certificate of Recognition issued by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India to be submitted.
- c. Certificate of incorporation.
- d. Audited Profit & Loss (P&L) Statement of all the Financial Years since incorporation. In case where the Balance sheet has not been prepared, bidder shall submit a certificate in original from its CEO/CFO stating the turnover of the bidding entity separately for each Financial Years since incorporation along with a declaration stating the reason for not furnishing the audited P&L Statement. This certificate shall be endorsed by a Chartered Accountant /Statutory Auditor.

3.2 Technical Requirements:

- a. The indigenous vendor/company to provide the details of present business of the company and shall be:

- i. OEM for Fiber Optic Perimeter intrusion detection system that can be fence-mounted, buried, or deployed in a wall-top configuration.
OR
- ii. OEM for fiber optic testing equipment, motion sensors and advanced optical signal acquisition and processing capability in Distributed Acoustic System (DAS).
- b. Vendor/company to provide synopsis of research and development work undertaken towards innovation, development, or improvement of PIDS Technology and shall provide combination of DAS with AI (Artificial Intelligence) algorithms for signature pattern recognition and real time machine learning etc.
- c. Vendor/company must have an advanced Research Laboratory in Distributed Acoustic Sensing Techniques in India. Photograph of lab to be submitted along with the offer.
- d. List of available equipment to carry out advanced research work on DAS, like phase sensitive optical time domain reflectometer (Φ -OTDR) and coherent optical time domain reflectometer (COTDR), servers etc. to be submitted. Proof of possession of such equipment is to be submitted.
- e. Any award received for technical excellence by the company from Government of India agencies and/or patent(s) in fiber optic instrumentation field.
- f. The Vendor/company should consent to inspection of their available laboratory facilities by OIL.
- g. Vendor/company should provide the manpower in their payroll, preferably having the following:
 - i. PhD or M. Tech or B. Tech or MSc having working experience in the relevant field.
 - ii. Technicians (3 year Diploma in Engineering / Degree in Science).
- h. List the likely benefits to OIL INDIA LIMITED from the trial exercise.

3.3 Vendor/ Company's financial performance documents:

- a. For proof of positive net worth for preceding financial / accounting year (of the company or its parent company if it is a wholly owned subsidiary) the following documents shall be submitted with the offer:-
 - i) A certificate issued by a practicing Chartered accountment (with Membership Number and Firm registration Number), certifying the Annual turnover & Net Worth. 'UDIN' along with membership and firm registration number of CA issuing the certificate for Turnover & Net Worth of the bidder shall be provided.
OR
 - ii) Audited balance Sheet along with Profit & Loss account.
- b. Bank account no., Bank name & address, solvency letter from Bank.
- c. PAN No.
- d. GST Registration Certificate

4.0 Facilities to be extended by OIL INDIA LIMITED shall include:

1. OIL shall provide space for installation of Equipment in existing Pump Station or Repeater Station.
2. OIL shall provide Power supply for the equipment (230V, 50Hz).
3. OIL shall provide access and use of OIL's cross-country optical fibre (maximum 2 nos.) which is laid inside HDPE Duct along the pipeline.
4. OIL shall provide limited transportation required during installation of the equipment (limited to the sector under trial).
5. OIL shall provide the connectivity required to monitor the controller / equipment from a Centralized Monitoring Room.
6. OIL's personnel shall provide support in creating intrusion signatures in ROW.
7. OIL shall provide transportation and necessary help in verification of intrusion signatures.

5.0 Conditions to be agreed to by Vendor/company before commencement of the trial:

1. Vendor/company must agree to abide by OIL's standard HSE policy before commencing the trial.
2. OIL shall not be responsible for any loss / injury to vendor/company personnel / equipment due to any accident in OIL's premises for reason whatsoever.
3. Terms for issue of POC: OIL shall issue POC after completion of the trial only if Vendor/company's System successfully demonstrate the followings:
 - i) Successful detection of at least 95% of simulated intrusion to the pipeline along with the location.
 - ii) Intrusion detection repeatability of at least 95% of same type of intrusion at multiple location.
 - iii) Accuracy of location detection should be $\pm 100M$.
4. Vendor/company to note that this EOI aims to establish the POC and simultaneously develop vendor/company capability and OIL shall contribute by means of providing usage of infrastructure as well as logistics as detailed in clause 4.0 above.
5. Vendor/company to mention payment terms and conditions from their side on successful completion of the POC, if any.
6. Any other terms as mutually agreed.

6.0 It may be noted that any decision to accept or reject the offer by OIL shall be final and no correspondence in this regard shall be entertained by OIL.

7.0 SUBMISSION OF EOI: The interested parties shall submit the EOI along with the following details:

Contact Details:

Name of Party	
Name of concerned person	
Designation	
Telephone number	
Mobile number	
Fax number	
Address	
e-mail	
Company profile	

8.0 GENERAL NOTES:

- (i) All documents submitted along with the EOI should be clear & legible.
- (ii) The EOI is liable to be ignored in case of submission of any misleading/false representation by the Firm.
- (iii) OIL INDIA LIMITED reserves the right to ignore any or all EOIs from the Firm and also to curtail/enhance the scope of work stated above, if required, without assigning any reason thereof.
- (iv) This EOI is non-binding in nature and submission of information should not be considered as shortlisting/selection of the Firm(s) who have responded to this notification for EOI in any subsequent RFP/Tender/Bid process that may be undertaken in future.
- (v) OIL reserves the right to terminate the EOI process at any point of time without assigning any reason.
- (vi) No participant shall contact OIL on any matter relating to the EOI after the last date of submission of EOI unless requested so in writing. Any effort by the participant to influence OIL in the decision making in respect of EOI will result in rejection of that participant.
- (vii) Based on the responses received against this invitation, a meeting shall be held with responding Firms to discuss the information/views submitted. Date and time shall be intimated separately.

9.0 **SUBMISSION DETAILS:**

- i. All interested vendor / company fulfilling the conditions stated above shall send their interest information and documentation at the address given below within **25 (twenty-five) days of publication up to 15:00 Hrs (IST)** of this EOI i.e., up to **18.09.2023** by e-mail or via courier:

(The envelope should be subscribed with “Reference: **EOI: PIDS/2023/001**”)

GENERAL MANAGER (T&I) I/C
PIPELINE HEADQUARTERS
OIL INDIA LIMITED
UDAYAN VIHAR, NARENGI
GUWAHATI, ASSAM-781171 PHONE-NO: 03612595200

Email: tel_business@oilindia.in

- ii. In case, the above-mentioned last date of submission of the EOI happens to be a non-working day for OIL in Guwahati due to Bandh/holiday or for any other reasons, EOIs shall be received up to the next full working day till 15:00 Hrs. (IST) and opened accordingly. EOI may be sent by post/courier service or delivered personally at the above address. However, OIL shall not be responsible for any consequence arising out of delay in receipt or non-receipt of EOIs.
- iii. For clarifications, if any, the interested party may contact the following email addresses: nabalahkar@oilindia.in; santanusarma@oilindia.in; sandeep_chakraborty@oilindia.in; ramanujd@oilindia.in