



CSIR-Indian Institute of Petroleum

(Council of Scientific & Industrial Research)

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Subject: Invitation of Expression of Interest for Fixed Bed Hydroprocessing Unit

CSIR-Indian Institute of Petroleum (IIP), Dehradun, and ISO 9001 Institute, is one of the leading constituent laboratories under Council of Scientific & Industrial Research (CSIR) engaged in R&D work in petroleum refining, natural gas and petro-chemicals and contributing towards creation of state of the art technology & products. CSIR-IIP has been working on several projects of natural importance independency and also in collaboration with well-known Indian foreign organizations.

E-BIDS for EOI are hereby invited through Central Public Procurement (CPP) Portal (<https://www.etenders.gov.in>) and only online quotations will be entertained from the registered bidders of CCP Portal.

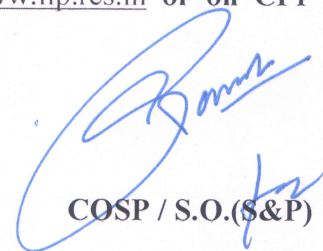
Reference No.: PUR/1/20-21/EOI/291/SKM/HOPD/PO:

“Fixed Bed Hydroprocessing Unit”

Last date of submission : 6th Oct, 2020 by 3:00 PM

Date of opening : 7th Oct, 2020 at 3:00 PM

Interested bidders may download the details from our Website: www.iip.res.in or on CPP Portal (<https://www.etenders.gov.in>).


COSP / S.O.(S&P)

Subject: Invitation for Expression of Interest (EOI) for “Fixed Bed Hydroprocessing Unit”

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EOI are hereby invited from reputed engineering/fabricating companies/firms for putting up “**Fixed Bed Hydroprocessing Unit**” Firms having done similar nature of work can apply along with the documentary evidence for the work done in the past. The firms should also meet the other parameters as given below and are required to submit following information along with their applications.

- 1) Name of the firm with their constitution/proprietorship/partnership detail, etc with the date of establishment/registration.
- 2) List of similar works successfully completed in the last three years as above with testimonials from department concerned and the details of contact persons.
- 3) The firm should not have incurred any loss in more than two years during the last five years ending 31st March, 2020.
- 4) List of works in hand giving nature of work, department, cost, date of start and completion with present progress and the contact details of clients.
- 5) Balance sheet of the firm for previous two years (2018-19 and 2019-20) must be enclosed with the offer certified by chartered accountant evidencing turnover.
- 6) The article of association with offer to know the standing of the firm.

Offers against this EOI should be submitted in form of E-BIDS through Central Public Procurement (CPP) Portal (<https://www.etenders.gov.in>) and only online quotations will be entertained from the registered bidders of CCP Portal. Last date of submission of EOI is **6th OCT, 2020 by 3.00 PM** and shall be opened on the 7th OCT 2020 at 3:00 PM. Shortlisted firms shall be called for making a presentation at a later date.

If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of work in CSIR. CSIR-IIP reserves the right to verify the particulars furnished by the applicant; independently. CSIR-IIP reserves the right to reject any prospective application without assigning any reason.

Brief description of Expression of interest for Fixed Bed Hydroprocessing Unit

Specifications :

A. Feed Section:

Gas

1. Hydrogen or Air with MFC (5 to 200L/h)
2. Nitrogen with MFC (5 to 200L/h)

Liquid

1. Feed vessel with heat tracing (accompany with weight balance) capacity 12L

2. Simple graduated cylindrical glass tube for feeding of presulfiding or cleaning liquid, capacity 5L

Pump

1. Feeding high viscous (viscosity $\sim 10000\text{cSt}$) liquid (Flow rate: 25 to 200 mL/h)
 2. Feeding presulfiding or cleaning liquid (Flow rate: 100 to 500 mL/h)
- Pump should work at high pressure and high temperature.

B. Reactor Section:

1. Catalyst volume 75mL (max)
2. Maximum working temperature: 450°C (should work at isothermal conditions)
3. Maximum working pressure: 200 bar
4. Feeding option both upflow and downflow

The reaction atmosphere is corrosive (H_2S). So proper metals should be used for fabrication of the reactor to handle corrosion.

C. Separation Section:

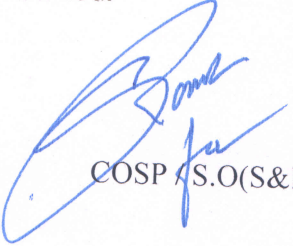
1. High pressure and low pressure gas-liquid separators.
2. Condenser for gas products with gas flow meter.
3. Proper arrangement for sampling gas products to GC.
4. Proper arrangement for outlet of liquid products after separation.

D. Control

1. The unit should be controlled and monitored by computer with friendly user software.
2. All heat tracing of lines should be properly controlled.

E. Safety

1. It is a high temperature and high pressure system (in presence of HYDROGEN). Proper adequate safety options (like safety valve at the top of the reactor, proper filter of gas and liquid feed, check valves etc.) should be installed.


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