Sub: Minor Fabrication- Invitation of quotations

1. Quotations are invited for the Minor Fabrication job as per the enclosed scope of work.

2. The bidder shall quote for **fabrication, supply, installation and testing of water & air headers, their piping and associated Miscellaneous work** for Air Plasma Gasifier as per specifications and scope of work as given in Annexure.

3. Taxes shall be quoted separately.

4. Quotations should be sent by Indian (Speed) post only.

5. Quotations are to be in printed letter head / quotation format which should consist of GST NO. and PAN number etc. Quotations that are received in computer-generated form will be construed as invalid and rejected.

6. The quotations must reach, Head, Laser & Plasma Technology Division by 18:00 pm and must be sent in a sealed envelope **superscribed** with the above reference number and due date given above.

7. The address on the envelope should read:
   The Head,
   Laser & Plasma Technology Division,
   Bhabha Atomic Research Centre,
   Trombay, Mumbai-400 085.
   **Attn:** R. L. Bhardwaj

8. Quotations will not be opened in the presence of any vendor.

9. The job shall be completed within 2 week under the direct supervision of L&PTD staff.

10. Head, Laser & Plasma Technology Division, BARC reserves the right to accept/reject any or all quotations without assigning any reason.

Yours sincerely,

[Signature]
Head, L&PTD

CC:
AAO, Works, BARC

The quotations will be opened at 2.00 PM on 19/11/2020
Annexure
Specifications and Scope of work

1. **Specifications**: This work is for fabrication, supply, installation and testing of water & air headers, their piping and associated Miscellaneous work for triple torch 60 kW Air Plasma Gasifier facility being developed at Laser & Plasma Technology Division of BARC. The job shall confirm the relevant Indian standard and practices. All cabling and welding shall be carried out by qualified/ license holder wiremen / welders. Only pre-approved make and model of components shall be used for the job. A brief specification of job is given below:

<table>
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<tr>
<th>Sr. No.</th>
<th>Specifications &amp; description</th>
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<tbody>
<tr>
<td>1</td>
<td>Fabrication, supply, installation and testing of main inlet header, outlet header and headers for KOH and DM tank heat exchangers. The main inlet header is of 2” NB SCH 40 pipe SS 304 with 15 nos. of ½” needle valve, 15 nos. ½” hex nipple, 1 no of RTD sensor, 1 no. of 4” SS body pressure gauge, 1 no. 2” ball valve &amp; associated SS fittings. The main outlet header is of 3” NB SCH 40 SS 304, with 1”, 15 channels; each channel has RTD, flow switch, water Rota meter (0-20 lpm) and needle valve. Both inlet and outlet have 4” SS body pressure gauge, common RTD, ball valve &amp; associated SS fittings including SS 304, 2” NB SCH 40 pipelines from source / outlet and their isolation valves. From main inlet and outlet headers three torches shall be connected using ½” SS braided hose pipe with insulation, PU reducer and PU tubes. The inlet and outlet header for KOH and DM tank heat exchanger are of 2” NB SCH 40, two channels, with each channel have rota-meter (0-100 lpm) and 1” isolation valve. SS 304, 1” NB SCH 40 pipeline with insulation shall be used for connection to above mentioned main inlet and outlet header to the inlet and outlet header for KOH and DM tank heat exchanger and 1” SS braided hose pipes with insulation shall be used for to KOH and DM tank heat exchanger inlet-outlet.</td>
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<td>2</td>
<td>Fabrication, supply, installation and testing of 2” NB SCH 40 SS 304 Air inlet header with 8 nos. of 1” needle valve, 1 nos. of ½” needle valve, 5 nos. of air Rota-meter (0-1000 lpm), 3 nos. of air Rota-meter (0-100 lpm); and supply &amp; laying of 1” SS braided Hose pipe from Air header to Primary chamber &amp; secondary chamber for air purging.</td>
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<tr>
<td>3</td>
<td>Fabrication, supply, installation and testing of Miscellaneous associated jobs. This includes stand for skip hoist panel, blanking flanges with nut- bolt – washer, couplings &amp; nipples, water jet sprinkles, SS water jacketed gas ports &amp; SS T for sampling, resistor boxes, rallying guard, torch end PU fitting &amp; extension, 25mmX3mm earthing strips, tray &amp; fittings, monometers set etc.</td>
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2. **Scope of work**: The scope of work for water & air headers, their piping and associated Miscellaneous work for triple torch 60 kW Air Plasma Gasifier facility being developed at Laser & Plasma Technology Division of BARC is as given below:

1. This is a custom-built and site specific job. Vender shall visit the site and understand the job complete in all respect including the interconnection with the other sub-system of the facility.
2. Preparation of detailed design - drawing based on the site discussion, interconnection with other subsystems and schematic / P&I diagram.
3. Getting design- drawing approved from Executing Officer.
4. Fabrication of water & air headers, their piping and associated Miscellaneous work based on the approved design -drawing complete in all respect using his (Vendor’s) men, machine and material. No Free issue material will be provided.

5. Installation and testing of the water & air headers, their piping and associated Miscellaneous including suitable modifications if any to match the interconnectivity with other sub-system.

3. General terms and conditions
   a. The supplier shall quote for the above mentioned work on the original letter head of the company. The PAN No., GST NO. shall be printed/ written on the quotation. The supplier shall also provide a copy of the PAN card for reference. Quotations without these details shall not be accepted.
   b. The quotations should be mailed in sealed envelopes and only hard copies of the quotations will be accepted.
   c. The delivery period is 2 weeks from the date of work order.
   d. The manufacturer shall issue a guarantee certificate for at least a period of one year from the date of acceptance of the work.
   e. The purchaser has the right to visit the suppliers' works and decide on their capacity to handle the work before issue of work order.
   f. Payment: Payment will be made only on satisfactory completion of work and on production of bill and advance stamped receipt and guarantee/warranty certificate.
   g. Confidentiality Clause: No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as “Proprietary” in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.