दूरभाष :
TELEPHONE :
तार : बार्क–मुंबई, तेम्बुर.
TELEGRAMS: BARC-MUMBAI, CHEMBUR.
टेलेक्स : ०११-६१०१७/०११-६१०२२ बार्क ईन
TELEX: 011-61017/011-61022 BARC IN
फेक्स संख्या : ९१-२२-५५६०७५०
FAX NUMBER: 91-22-5560750

ट्रॉम्बे,
मुंबई-४०० ०८५.
TROMBAY,
MUMBAI-400 085.

सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
भाभा परमाणु अनुसंधान केन्द्र
BHABHA ATOMIC RESEARCH CENTRE

Laser & Plasma Technology Division
Mod. Labs. Trombay,
Mumbai-400 085

Ref: LPTD/JSB/works/05-2022/001 **Date: 18/5/2022**

Sub: Minor Fabrication- Invitation of quotations

Due date: 1/6/2022

Dear Sir,

Quotations are invited for the "Plasma torch and testing setup modification" as per technical specifications and scope of work. The bidder shall quote for fabrication of these components with material.

1. Taxes and excise duties shall be quoted separately. Form H/AF shall be provided wherever necessary.
2. Quotations are to be in printed letter head / quotation format which should consist of sales tax, registration number registered with the local ST authority/ CST authority, PAN number etc. Quotations that are received in computer- generated form will be construed as invalid and rejected.
3. The quotations must reach, Head, Laser & Plasma Technology Division **by 1/6/2022** and must be sent in a sealed envelope super scribed with the above reference number and due date given above by **speed post or registered post** only.
4. The address on the envelope should read:

   The Head,
   Laser & Plasma Technology Division,
   Bhabha Atomic Research Centre,
   Trombay, Mumbai-400 085.
   Attn: Shri. Jaykishan S. Bosamiya, SA/D, LPTD, BTDG, Ext. No. 22020

   The bidder shall have to take an insurance policy against any material issued to him by the purchaser.
5. The fabrication work shall be subject to inspection by our engineer. The finished components shall not be dispatched prior to approval by our engineer at bidder's works. Necessary inspection facilities shall be provided to our engineers during fabrication at bidder's premises.
6. The bidder shall deliver the finished components after the approval by our engineer, within **three month** from the date of our firm purchase order is issued to the bidder. The finished components and the scrap from the free issue material shall be delivered by the bidder at: **Hall no.6, Laser & Plasma Technology Division, Trombay, Mumbai-400 085.**
7. Head, Laser & Plasma Technology Division, BARC reserves the right to accept/reject any or all quotations without assigning any reason.

Yours sincerely

R. L. Bhardwaj
OIC, Electrical Design, LPTD

Quotation shall be opened on date 1/6/2022 at 2.00pm.

Technical Specification and scope of work for fabrication of Plasma torch and testing setup modification

1. Specification:

This specification is for fabrication of non-transferable plasma torches consisting of bolted cathode based torch & hollow cathode based torch, and modification in the torch testing setup. The torches should be fabricated based on the schematic/drawings provided. Modification in the torch testing setup shall be carried out as per site requirement.

Vendor shall discuss the schematics diagram, 3D drawings, power components, and overall assembly and enclosure before submitting the quotation.

Sr. No.	Description	Qty.
1	Fabrication of hollow cathode plasma torch as per schematics provided along with this document. (Schematics/Drawings given in Annexure I)	2 set
2	Modification in the torch testing setup including incorporation of rotameter with needle valve rating from 0 to 400 slm argon, 0 to 1000 slm air, 0 to 400 slm air with suitable gas distributor manifold with pig tail connector suitable for 12 mm pu tube connector (50 m of 12 mm pu tube with 20 nos. connectors required for air distribution system), Incorporation of 0 to 100 lpm water rotameter with valves, ¾ x nipple hose connector.	1 set
3	Fabrication of bolted electrode plasma torch as per schematics provided along with this document. (Schematics/Drawings given in Annexure II)	2 set
4	Incorporation of 1.3 ohm 200 A ballast resistance with 4 Nos. bypassing contactor of 400 Amp capacity in the plasma torch test setup. Copper cable of 100 sq. mm. with suitable end termination for above mentioned resistance and enclosure for the setup.	1 set
5	Incorporation of 3 kV, 3 MHz HVHF trigger unit with required connectors, cables and enclosure.	1 set

2. Scope of work: The scope of work for this job is as given below

1. Preparation of Fabrication Drawing based on the schematics and specification, and getting it approved for plasma torch fabrication.
2. Preparation of component layout and assembly of components for modification in test setup.
3. Procurement of all required components for assembly is also in vendor's scope.
4. Testing of plasma torch including physical test, DP test, hydro test and megger test.
6. Functional testing of modified test setup and integration with plasma torch and chilled water system.
7. Safe delivery at North gate, BARC, Trombay, Mumbai.
8. NO FIM

Jaykishan

Annexure I	Annexure II