Sub: Notice inviting tender for "Fabrication and Supply of Customized Tunable Buffer Circuit and Required Accessories"

1. Scope : Fabrication and Supply of Customized Tunable Buffer Circuit and Required Accessories
   (Details: Annexure I, II, III)

   Note: The items are for delivery and testing at IPR, Bhat, Gandhinagar, Gujarat

2. General guidelines for submitting tender
   • You shall send your offer in a sealed envelope indicating delivery period, price inclusive of taxes and other relevant information by speed post/Courier to:
     Head,
     Computational Analysis Division
     Bhabha Atomic Research Centre
     Anu Vihar, Mekarasi Hill, Village: Maduturu,
     Near Nagaravarm-Atchutapuram Highway
     Visakhapatnam 531011
     (Kind Attention: Shri. Subhrajit Guin, SO/C)

   • Quotation shall reach us on or before 15/11/2019 by Speed Post/Courier Only

   • On top left corner of the envelope please indicate Quotation For - Fabrication and Supply of Customized Tunable Buffer Circuit and Required Accessories: Due Date 15/11/2019

   • Price to be specified strictly as per template provided in Annexure-II.

   • Overwriting, scratching etc. must be avoided in the quotation. Rewriting the whole figure shall carry out any alteration in the figure. The authorised person from the firm shall countersign such figure.

   • The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date.

   • Minimum Guarantee / Warranty period of the material shall be one year.

   • Supplier shall mention clearly the PAN /TAN no. on quotation.

   • GST number shall be clearly mentioned on Quotation

   • All the charges and taxes shall be mentioned clearly.

   Please note that BARC being an R&D institution, GST rates are as follows
   - For Intra-state Supply of Goods: @ 2.5% SGST + 2.5% CGST
   - For Inter-state Supply of Goods: @ 5.0% IGST
   - GST exemption certificate shall be issued to the supplier.

   (This is as per Office Order No. BARC/GST/12/2017 dt. 27.12.2017)
3. PLACE OF DELIVERY AND TESTING: IPR, Bhat, Gandhinagar, Gujarat

The inspected and accepted components shall be delivered to:

The Stores Officer,
Institute For Plasma Research
Bhat, Gandhinagar,
Gujarat-382428

4. PAYMENT TERMS:

a) Part payment/Advance or against delivery cannot be made.

b) Payment will be made only after satisfactory completion of work and on production of (along with Delivery Challan):
   i. Bill/Invoice containing Location of supply, separate tax components along with PAN and GSTN numbers
   ii. Advance Stamped Receipt
   iii. Bank Account No, Bank and Branch name with IFSC code.
   iv. Undertaking stating that GST has been promptly deposited with the authorities

c) It may be noted that:
   i. Income tax @2% will be deducted from your bill.
   ii. TDS(under GST) will be deducted as applicable from your bill of taxable goods and/or services, where the total value of such supply exceeds 2.50lakh.

5. 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.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force. “Restricted information” categories under section 18 of the Atomic Energy Act,1962 and “Official Secrets” under section 5 of the official secrets act, 1923:-

Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC’s name without permission for publicity purposes:-The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC’s name for any publicity purpose through any public media like press, radio, T.V. or Internet without the prior written approval of BARC.

6. You may contact us for any clarification before 15/11/2019 (Shri Subhrajit Guin, 0891-283-8073, sguin@barc.gov.in)

Subhrajit Guin
28/11/19
SO/C, CAD
**Scope of work**

**Design, Development and Supply of Customized Tunable Buffer Circuit and Required Accessories**

Brief Description:
The above work consists of the following:
1. Designing a Tunable Buffer Circuit with components necessary to match required Load Impedance.
2. Assembly of all electronic components and development of necessary circuitry.
3. Supply all the necessary accessories such as interfacing cables and power cables.

**Important:** The vendor should have a technically competent team of engineers. All technical training and know-how related to usage of the Tunable Buffer Circuit including their settings, connections etc will be imparted by the vendor and lies within the scope of work.

**I. Development of Tunable Buffer Circuit:**
   a. The Buffer Circuit must be able to operate at Max. Output Power of 600 W at 13.56 MHz.
   b. The Buffer Circuit should be able to match the Load Impedance of our system with the existing Power source (50 Ohms) under any circumstances. Vendor should contact us for other details of the generator.
   c. Load Range:
      - Resistance: 0 to 150 Ω
      - Reactance: (+j100) Ω to (-j300) Ω
      Acceptance will be given subject to successful demonstration and testing at our site (IPR, Ahmedabad) using our system load.
   d. The Buffer Circuit should accept RF input through 50 Ohms N-type Female RF-Connector and provide RF output through High Voltage screw – type terminal or 7/16 connector.
   e. Suitable communication port to the RF Generator should be provided. Both RF Generator and the Matching Network should be compatible.
   f. Vendor should contact us for details about our RF generator.
   g. Input Requirement for the Power source should be 230 VAC, 50 Hz.
   h. The power source should be facilitated with Air-cooling system.
   i. The internal construction should consist of Series and Load tuned variable vacuum capacitor with suitable Inductor.

Consists of 2 broad sections.
Following fabrications are to be carried out [Refer Annexure III]:

<table>
<thead>
<tr>
<th>SL No</th>
<th>Title</th>
<th>Material</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Housing</td>
<td>Aluminium</td>
<td>Houses the internal circuitry and facilitates air-cooling.</td>
</tr>
<tr>
<td>2</td>
<td>Internal Circuitry</td>
<td><strong>Vacuum Variable Capacitors</strong> + Other components: Standard Availability</td>
<td>Sizes conforming to the housing dimensions.</td>
</tr>
</tbody>
</table>
II. **List of Required Accessories:**

| Accessories to be supplied | (1) RF Power Transfer cable.  
(2) Mains 230 V cable.  
(3) Interface cable (preferably RS232) for RF Generator.  
(4) Operating and Service Manual.  
(5) Factory Test Certificate |

III. **General requirements:**

1. The entire assembly of the functional unit is within the scope of work of the vendor.
2. Acceptance will be given subject to successful demonstration and testing at out site (IPR, Ahmedabad) using our system load.
3. One-Year (or more) Standard Warranty has to be provided.
4. The vendors are encouraged to hold prior discussions with the indenter for any clarifications or suggestions.

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**Contact Persons:**

1. **Shri Subhrajit Guin** *(Indenting Officer)*
   SO/C, Computational Analysis Division  
   BARC-Vizag  
   Ph: 0891-2838-073  
   Email: sguin@barc.gov.in

2. **Dr. S Pahari**  
   SO/F, Computational Analysis Division  
   BARC-Vizag  
   Telefax: 0891-2838-072  
   Email: sambaran@barc.gov.in

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*Subhrajit Guin*

SO/C, CAD  
Indenting Officer  
28/10/19
COMMERICAL QUOTE : TEMPLATE OF PRICE BREAKUP

Prices should be stated strictly as per below template.

<table>
<thead>
<tr>
<th>S. No</th>
<th>System</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Customized Tunable Buffer Circuit and Required Accessories</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Assembly 1: Tunable Buffer Circuit</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Required Accessories</td>
<td>-</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Misc Charges (Freight etc)—if any</td>
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</tr>
<tr>
<td></td>
<td><strong>Tax</strong></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>Total (with Tax)</strong></td>
<td>-</td>
</tr>
</tbody>
</table>
(i) The Housing:

Drawings for Tunable Buffer Circuit:
(ii) The Internal Circuitry: