SUMMARY

Call For Nomination IO/CFN/13/7000084/JTR

Framework Service Contract for
Manufacture of Mechanical Components and Associated Tests to Support the Development of the Diagnostic Equipment

Purpose

The main purpose of this framework contract is to provide the ITER Diagnostic Division with tested prototypes or with mechanical components.

Background

The ITER Organization (IO) is bringing together people from all over the world to be part of this unique project and to contribute to building the ITER device which requires the best people from many disciplines. In order to study the behaviour of this device, a set of monitoring systems (called Diagnostics) are required. These systems will provide the information required to understand and control the performance of the device.

Many of the diagnostics directly interface ITER Vacuum Vessel or Port Extensions and contribute to keep both the vacuum containment and the tritium confinement. Integration constraints and diagnostic requirements will impose to develop novel concepts or fit existing concepts to ITER environmental conditions. Those will require prototyping and testing.

Scope of work

ITER Organization Diagnostic Division shall require the manufacture of prototypes or mechanical components which will require testing. Following the execution of design work and according to the maturity of the designs contemplated for the equipment or components to be tested, some detailed designs may also be required.

The scope of the work requested in the specification covers the services of experienced manufacturers in Ultra High Vacuum components, with ability to tackle technical challenges such as fabrication and assembly of complex features (MI cables junction boxes, Setup and weld cable end joints, fabricate braze joints, seal cables into vacuum test rig and perform full range of withstand voltage tests at various pressure levels…).
The scope of work also includes high level testing capabilities and methods required to
determine processes parameters of materials used (high thermal and electromagnetic testing,
load capabilities such as…

- Welding / Brazing / Diffusion Bonding / Thermal / Electromagnetics testing,
- Machining (Milling, Cutting, Drilling, Spark erosion, etc) Austenitic Stainless Steel
  (304 or 316), Nickel Based Alloys, Titanium, Copper, …)
- Designing (3D or 2D CAD model) from CATIA conceptual models provided by Iter
  Organization,
- Permanent or temporary assembly of mechanical components,
- Helium Leak Testing (leak rate $< 1 \times 10^{-10} \text{ Pa.m}^3\text{s}^{-1}$) on welded joints or particular
  assemblies,
- Radiography of welded joints.

**Duration of services**

The Contract is scheduled to come into force in the 1st quarter of 2014 for a total duration of
five (5) years. Due to the diversity of the required components, the ITER Organization
reserves the right to award this contract to more than one supplier.

**Procurement Time table**

A tentative time table is outlined as follows:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Call for Nomination release</td>
<td>23 September 2013</td>
</tr>
<tr>
<td>Receipt of nominations</td>
<td>19 November 2013</td>
</tr>
<tr>
<td>Issuance of Pre-Qualification Questionnaire</td>
<td>25 November 2013</td>
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<tr>
<td>Clarification questions related to the PQQ (if any)</td>
<td>4 December 2013</td>
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<tr>
<td>Response to Questions from ITER Organization</td>
<td>10 December 2013</td>
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<tr>
<td>Receipt of Prequalification Application</td>
<td>20 January 2014</td>
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<tr>
<td>Notification of Prequalification results</td>
<td>28 January 2014</td>
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<tr>
<td>Issuance of Call for Tender</td>
<td>07 February 2014</td>
</tr>
<tr>
<td>Clarification questions related to this Call for Tender</td>
<td>15 February 2014</td>
</tr>
<tr>
<td>Response to Questions from ITER Organization</td>
<td>28 February 2014</td>
</tr>
<tr>
<td>Tender Proposal Submission Due Date:</td>
<td>20 March 2014</td>
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<tr>
<td>Tender Evaluation &amp; Notification of results</td>
<td>March 2014</td>
</tr>
<tr>
<td>Estimated Contract Award Date:</td>
<td>April 2014</td>
</tr>
<tr>
<td>Estimated Contract Start Date:</td>
<td>April 2014</td>
</tr>
</tbody>
</table>
Experience

The specific requirements for the acceptance criteria for the selection process of the tender are listed below.

- Past experiences related to the supplying of UHV mechanical components,
- Expertise in the machining of UHV mechanical components,
- Expertise in the metallic assemblies using welding, e-beam welding and brazing,
- Machining facilities,
- Tests facilities,
- Organization,
- Quality plan,
- Quotation of a diagnostic sensor platform.

Candidature

Participation is open to all legal persons participating either individually or in a grouping (consortium) which is established in an ITER Member State. A legal person cannot participate individually or as a consortium partner in more than one application or tender. A consortium may be a permanent, legally-established grouping or a grouping, which has been constituted informally for a specific tender procedure. All members of a consortium (i.e. the leader and all other members) are jointly and severally liable to the ITER Organization. The consortium cannot be modified later without the approval of the ITER Organization.

Legal entities belonging to the same legal grouping are allowed to participate separately if they are able to demonstrate independent technical and financial capacities. Bidders’ (individual or consortium) must comply with the selection criteria. IO reserves the right to disregard duplicated references and may exclude such legal entities from the tender procedure.

Reference

Further information on the ITER Organization procurement can be found at:
http://www.iter.org/org/team/adm/proc