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SUMMARY

Call For Nomination

IO/14/CFT/7-0111/BGD

Framework Service contract for Specialist Engineering Support to ITER Diagnostics

Purpose

The purpose of this Contract is to support the ITER Diagnostic Team with engineering services. These services will work with the staff in the IO Diagnostic Division, Domestic Agency partners and other Divisions as relevant to design, coordinate and implement the diagnostics for ITER.

Background

ITER is a joint international research and development project for which initial construction activities have recently started. The project aims to demonstrate the scientific and technological feasibility of fusion power for peaceful purposes. The seven Members of the ITER Organization are the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. ITER will be constructed in Europe, at Cadarache, in southern France, where the ITER Organization (IO) has its headquarters. The primary objective of ITER is to show fusion could be used to generate electrical power, and to gain the necessary data to design, construct, and operate the first electricity-producing plant. It will generate 500 MW of fusion power for extended periods of time, ten times more than the energy input needed to keep the plasma at the right temperature. It will therefore be the first fusion experiment to produce net power. It will also test a number of key technologies, including the heating, control, diagnostic and remote maintenance that will be needed for a full-scale fusion power station.

Scope of work

The scope of the engineering support services requested in this specification covers the supply of suitable and experienced experts to contribute to establish and reinforce the ITER diagnostic systems.

The expected services shall predominantly provide on-site diagnostics engineering support, but at the same time have a wide knowledge about the technologies selected. The scope of the work covers the services to supply suitable and experienced personnel.

The services requested herein can be categorized as follow:

- General Diagnostics Engineering with ability to cover issues from sensor to data analysis
- Experts in concept, design, realisation, interface definition and documentation of Plasma diagnostic systems
- Physics of diagnostics for tritium and dust analysis
- Magnetics systems design, development and integration
- Diagnostics Windows systems specification and development for a Nuclear environment
- Feedthroughs specification and development for a Nuclear environment
- Spectroscopy systems design, development and integration
- Polarimetry systems design, development and integration
- Diagnostics engineering interfaces resolution in complex environments
- Diagnostics Instrumentation and Control, design and development
- Diagnostics project organisation and implementation
- Mechanical design engineering
- In-Vacuum electrical distribution systems
- Integration of Diagnostic systems in Buildings and site infrastructure
- Design engineering (CATIA V5)

As a general statement, the details of the services to be provided by the contractor will be defined in the task order technical specification document. These technical specifications will be defined specifically for each Task depending on the actual requirement and will include a technical scope, the organisation of the task in IO and a description of the deliverables.

Due to the multiplicity of profiles required, the ITER Organization reserves the right to award this contract to more than one supplier.

Duration of services

The contract will be carried out over an initial period of seven (7) years. The contract is scheduled to come into force in December 2014.

Procurement Time table

A tentative time table is outlined as follows:

Call for Nomination	April 2014
Receipt of nominations	Early June 2014
Issuance of Pre-qualification	June 2014
Notification of Pre- qualification results	June 2014
Issuance of this Call for Tender	July 2014
Tender Proposals Due Date:	September 2014
Estimated Contract Award Date:	October 2014
Estimated Contract Start Date:	November 2014

Experience

Candidates shall provide a significant contribution in engineering diagnostics and system design, analysis of complex systems, i.e. in the following areas:

- Project handling of multiple complex Diagnostic systems
- Design of instrumentation or plasma diagnostics as specified above
- Commissioning or use of Diagnostics systems or instrumentation
- Basic EM, mechanical and thermal analysis
- Design and analysis of Nuclear systems, and application of codes and standards to Diagnostic designs
- Knowledge of the ITER design, in particular the cryostat / PF environment, vessel interface
- Experience in Tokamaks
- knowledge and experience in nuclear design industryExperience in large physics experiments

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/overview>