Summary Technical Specification

Alignment and Metrology Support - Framework Contract
BACKGROUND

ITER is a joint international research and development project that aims to demonstrate the scientific and technical feasibility of fusion power. The partners in the project - the ITER Parties - 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 the South of France.

The Machine Assembly and Installation (MAI) section is responsible for all aspects of dimensional control from acceptance testing of the constituent parts through to their final operational alignment.

The ITER device consists of many components, assemblies and associated systems which must be accurately and precisely aligned for the machine to operate. This will require meticulous planning and qualification followed by precise and controlled implementation.

The ITER Organization (IO) envisages to award up to a maximum of Four (4) framework contracts.

The scope of the contracts shall cover all aspects of Alignment and Metrology (A&M) activities from conceptualisation and process development through to survey, inspection and alignment activities, supported by detailed reporting and the preparation of as-built data records.

OBJECTIVES

The purpose of this Call for Nomination is to identify potential companies or consortia wishing to tender for the Alignment and Metrology Support Framework contracts to support this work scope.

The companies or consortia of companies selected shall be recognised for their knowledge and expertise in Alignment and Metrology (A&M) within the realm of large volume metrology (LVM) and will ideally have experience in both civil engineering applications and industrial measurement especially within industries where high order accuracy is demanded.

For the major ITER components, each alignment task will be carefully studied to develop and qualify the measurement and alignment process. The scope of the framework will cover preparatory work of this type progressing to pre-alignment and final positioning of the components concerned.

The assembly of the ITER device is to be carried out in Cadarache, in the South of France, where the majority of the work will be carried out. However, as its constituent parts are being supplied through the seven parties to the ITER agreement, a requirement for metrology support in these geographical areas is envisaged.
The level of workforce required to support A&M tasks is estimated to peak at 25, covered by task orders raised against the framework contracts. However; this level of support will not necessarily be achieved during the life of the contracts.

ESTIMATED DURATION

The duration of the A&M Framework Contracts will be five (5) years, with the possibility to extend up to a total duration of ten (10) years. Task Orders will be issued for specific scopes of work, the duration of each dependent upon the scope of the task.

It is anticipated that the initial set of Task Orders will be issued in 2013.

SPECIFIC AREAS OF A&M SUPPORT

The Contractor(s) will be requested to cover areas such as:

DEVELOPMENT AND QUALIFICATION

- development of measurement strategies
- qualification of measurement processes including uncertainty analysis
- drafting of procedures
- review of documentation
- technical reporting
- planning and progress monitoring

Implementation

- dimensional inspection
- surveying
- setting out
- pre-alignment
- final alignment
- reporting

The IO will have its own metrology equipment operating on the Spatial Analyzer (SA) software platform however; for tasks requiring offsite inspection or to level out peaks in workload the contractor will be required to provide their own instruments and SA software. This will be detailed in the task order applicable.
QUALITY ASSURANCE REQUIREMENTS

The organisation conducting these activities should have an ITER approved QA Program or an ISO 9001 accredited quality system.

CANDIDATURE

Candidates are allowed to form consortia or subcontract other companies. In this case, ITER Organization shall only have one single executive contact. All members of a consortium (i.e. the leader and all other members) are jointly and severally liable to the ITER Organization for the implementation of the contract. The Candidate’s composition (i.e. an individual legal entity or a consortium) shall be presented at the pre-qualification stage, following this Call For Nomination. The candidate’s/tenderer’s composition cannot be modified without a prior approval of the ITER Organization after the pre-qualification.

No more than one application can be submitted by a legal person whatever the form of participation (as an individual legal entity or as a member of a consortium submitting an application). In the event that a legal person participates in more than one application, all applications in which that person has participated may be excluded.

Legal entities belonging to the same legal grouping are allowed to participate separately if they are able to demonstrate independent technical and financial capacities. IO reserves the right to disregard duplicated references and may exclude such legal entities form the tender procedure.

Any subcontractor(s) shall not be considered to be members of a consortium and the experience and capacity of subcontractors will not be taken into account during the pre-qualification procedure.