



the way to new energy

china eu india japan korea russia usa

## TECHNICAL SUMMARY

### Call For Tender IO/20/CFT/7-602/ERA

### **Instrument and Control Support Services**

#### **Purpose**

This document is technical specification summary for Technical Support for ITER Controls Division. It defines the scope of the support, services to be provided and the main requirements for those services. The document describes the technical and managerial scope linked to a Framework Service Contract (FWC) to be awarded to a Contractor selected through a competitive process. Task orders within the framework contract will be freestanding technical support activities. Finally, this document provides the main technical requirements necessary for potential Candidates to understand if they have the overall technical and professional capacity in relation to the technical scope of the Contract.

#### **Background**

The ITER Controls Division is responsible of receiving and inspecting, testing, commissioning and operating a very large instrumentation and control (I&C) hardware and software infrastructure for manual and automated control and monitoring of all ITER plants and subsystems, including those for conventional facilities, investment protection (interlocks), access control and safety.

The objective of this document is to provide the main technical and management requirements to be fulfilled to provide support the ITER Controls Division in the activities mentioned below.

#### **Scope of work**

The contract awarded will establish the framework and the work will be structured in individual task orders. The services to be requested in the task orders will cover instrumentation and control technician level activities with instrumentation and control (I&C) systems ranging from conventional control systems, with slow and fast input/output (I/O), and industrial grade networks to the investment protection (interlocks) systems, access control systems and occupational safety systems.

Nuclear safety systems services are in the scope of work to be considered in case no activity important for protection (PIA) is performed.

The support requested covers instrumentation and control (I&C) component reception and inspection and the lifecycle management henceforth, ranging from single device units to large plant systems, containing several I&C cubicles located in several buildings.

Support is equally requested in construction, modification, configuration control and maintenance; to support the ITER Organization (IO) experts in assembling, wiring, testing and maintaining those systems.

The work location is the ITER Organization construction site and the office spaces around it located in Cadarache, France.

The Contractor shall be able to provide personnel to be located permanently and in daily basis in ITER site with occasional work in the ITER manufacturing and reception industrial locations in the radius of the 80 kilometres from the main construction site.

### **Contract schedule**

The Contract is scheduled to come into force in June of 2021 for a duration of four (4) years (3 years fix and one (1) optional).

### **Procurement timetable**

The tentative timetable is as follows:

Call for Nomination Release	August 2020
Issuance of Pre-qualification Application	October 2020
Issuance of Call for Tender	January 2021
Estimated Contract Award Date:	May 2021
Estimated Contract Start Date:	June 2021

### **Experience**

The company's experience shall cover a broad range of capabilities to support all activities in I&C cubicle assembly, construction, configuration and testing, including signal interfaces, hardware management, I&C software configuration control and maintaining the component lifecycle database. The provided personnel shall be capable to supervise and maintain the usability of the I&C technical rooms and laboratories.

They shall be capable to manage the reception and proper handling of large and heavy deliverables such as entire instrumentation cubicles, including their repacking and redelivery.

The required competences are:

1. Electrical certificates needed to work in LV electrical installation ;
2. Work in heights authorization for at least one technician ;
3. Experience of factory floor / machine front-end level signal interfacing, isolation, grounding and cabling ;
4. Experience in using signal testing devices and multimeters;
5. Experience in using oscilloscope, signal generator and other laboratory equipment ;

6. Experience in Siemens S300/S400/1500 product family including remote I/O ;
7. Experience in PROFINET networking, knowledge of PROFISAFE is an asset ;
8. Experience in Siemens TIA Portal development environment;
9. Experience of equipment configuration, calibration planning and inventory ;
10. Experience in Linux command prompt level operation is an asset ;
11. Experience in C/C++ programming and scripting to write test programs is an asset ;
12. Experience in managing and keeping configuration control in busy technical rooms ;
13. Experience in using MS Office to produce User's guides and test reports ;
14. Ability to communicate in spoken and written English in an international work place. Design, construction and operation of instrumented safety systems for large heterogeneous facilities.

### **Candidature**

Participation is open to all legal persons participating either individually or in a grouping (consortium). All legal persons including all consortium members should be established in an ITER Member State which are:

- European Union including Switzerland (EURATOM Members),
- Republic of India,
- Japan,
- People's Republic of China,
- Republic of Korea,
- Russian Federation, or
- United States of America.

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.

In the event of a consortium, a draft of the Consortium Agreement, or letter of intent and Power of Attorney signed by all the consortium members shall be submitted together with the tender.

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.

## **ITER\_D\_3LVY65 v1.0**

On 31 January 2020, the UK left the EU and Euratom with a transition period from 1st February to 31 December 2020 to be used to determine the conditions of their future relationship. Euratom is the ITER Member and the withdrawal of the UK from Euratom leads to the fact that UK is not anymore party to the ITER project.

Until the 31 December 2020, current end date of the transition period, UK entities retain the right to participate in IO procurement procedures.

More information on ITER Organization Procurement process can be found at:

<https://www.iter.org/proc/generalinfo>