

Call for Nomination

Project Management services for IO Project Controls Office

Technical Summary

Table of Contents

1	Purpose.....	3
2	Background and Objectives	3
3	Estimated Duration.....	4
4	Scope of Work	4
4.1	Planning & Scheduling (Lot 1)	4
4.2	Project Controls Management (Lot 2)	5
4.3	Risk Management and Cost Estimating (Lot 3).....	5
4.4	Project Baseline Change Control and Project Management Systems Administration (Lot 4).....	6
5	Experience	7
5.1	Planning & Scheduling scope (Lot 1).....	8
5.2	Project Controls Management scope (Lot 2).....	8
5.3	Risk Management and Cost Estimating scope (Lot 3)	8
5.4	Project Baseline Change Control and Project Management Systems Administration (Lot 4).....	8
6	Acronyms	9
7	Timetable	9
8	Candidature.....	9

1 Purpose

The ITER Organization (IO) Project Control Office (PCO) intends to place several contracts for specific areas of project management, as described further below. This technical summary provides a summary of the scope of services and gives an overview of the requirements and objectives of these contracts so that interested companies can express their interest to their respective Domestic Agencies. Further information including detailed technical specifications, requirements, and deliverables will be provided in the next stages of the procedure.

2 Background and Objectives

ITER (“The way” in Latin) is a next generation fusion Tokamak designed “to demonstrate the scientific and technological feasibility of fusion energy for peaceful purposes”. With a long lifespan of over than 30 years, it is intended that ITER will be a single step between the current set of fusion experiment and DEMO, a fusion power plant designed to demonstrate safe and reliable, commercial electricity production. Construction began in 2006 in Cadarache, France and is due to last ~10 years followed by an exploitation phase of ~20 years. ITER is being constructed as a basic nuclear facility (Installation Nucléaire de Base, INB) under French legislation on Transparency and Nuclear Security (loi relative à la Transparence et à la Sécurité en matière Nucléaire, “TSN law”) under the control of the Autorité de Sûreté Nucléaire, (ASN).

The project is being designed and built by the ITER partners: the European Union, India, Japan, the People’s Republic of China, the Republic of Korea, the Russian Federation, and the United States. The device will be built in Saint Paul Lez Durance in southeastern France, with the European Union being the host party. The ITER Organization (IO) is responsible for the overall management and integration of the project and coordination between the partners. Each Partner has its own Domestic Agency (DA) that is responsible for fulfilling its commitment to the Project. Approximately 90% of the direct capital investments for ITER will be provided by means of “in-kind” contributions from the members while the remaining 10% is provided by the IO, funded by cash contributions for the members. The in-kind contributions are defined, budgeted, recorded and monitored using the Procurement Arrangement (PA) process.

The IO PCO is responsible for the development, implementation and management of an integrated ITER baseline and provides a full suite of Project Management (PM) functions in support of the ITER project. This includes direct support to the IO at Saint Paul lez Durance, France, the Project Teams throughout the project, and also support to the Domestic Agencies representing the ITER partners.

The objective of the Project Management Services Contracts is to provide the IO PCO with the requisite project management services necessary to plan and manage the ITER Project Baseline.

Project Management services will be required in the following different technical areas representing each a separate lot as follows:

- Lot 1 : Planning & Scheduling
- Lot 2 : Project Controls Management (PCM)
- Lot 3 : Risk Management and Cost Estimating

- Lot 4: Project Baseline Change Control and Project Management Systems Administration

Separate awards are anticipated for each specific Technical Area (Lot). Several lots may be awarded to the same Contractor. The complete procedure will be defined in the next stages of the call for tender.

3 Estimated Duration

The period of services of each of the PMS Contracts should be one (1) year approximately (220 man-days), from January 2017 (mobilisation time foreseen in December 2016) through January 2018 with the option to extend for one additional (1) year.

4 Scope of Work

The selected Contractors will have to provide Project Management services to the IO PCO, for the planning, monitoring, managing, controlling and reporting of the ITER baseline performance.

The location of the work will be Saint Paul lez Durance, France. Full time presence of the personnel on the IO site is expected to perform the work however flexibility of onsite presence may be agreed by the IO. For some specific subtasks off-site execution may be permitted in which case it will be defined in the Technical Specification for the Call for Tender.

The anticipated number of man-days defined for each technical area is the current estimate from IO PCO. The volume of activities will be further detailed in the Technical Specification provided for the Call for Tender.

The different lots are further described in the next sections.

4.1 Planning & Scheduling (Lot 1)

The required Planning and Scheduling services shall support the development of the time-phased, resource-loaded Integrated Project Detailed Work Schedule (DWS) for the ITER work scope through direct interface with the assigned technical programs

The DWS reflects the integration of scope, schedule, and cost, and is used for work forecast, earned value performance measurement, analysis, and reporting as well as for baseline change management. It is developed and maintained by the ITER Organization using Primavera P6 software.

The required Planning and Scheduling services include:

- The integration of IO, and DA elements of the scheduling system, monthly forecast analysis of the integrated schedule, maintenance of the schedule reference baseline, reporting schedule status against the reference baseline to the Technical Responsible Officers (TROs) for their assigned WBS area and IO management.
- The management of monthly progress updates, critical path analysis and studies and implementation of formal changes to their respective WBS elements within the DWS.
- The loading and maintenance of resources and expenses in the DWS.
- The maintenance of Primavera and the other PCO related systems such as:

- The Issue Management Database
- The Risk Register
- The DWS Inter-Correspondence Management System
- The Project Management Reporting System

In addition to the DWS, Planning and Scheduling services cover the management of the higher tier planning documents including the Level 2, Level 1 and Level 0 (Overall Project Schedule), as well as the development and management of additional working level schedules as directed by their respective Project Controls Manager.

The anticipated number of man-days for the first year should be around 3080 to 3520.

4.2 Project Controls Management (Lot 2)

Project Controls Management refers to the integration of development and management of the baseline scope, schedule, cost and risk for assigned areas of the WBS. This includes baseline development, baseline performance measurement and reporting (using earn value management), and baseline change control during all phases of the project for assigned areas of the Work Breakdown Structure. These assigned areas are currently aligned at subproject level of the WBS to provide direct matrix support to each subproject.

A major element of these services includes support to the Technical Responsible Officers (TROs) in the budgeting, scheduling, estimating and risk management for their respective specific WBS areas. Under the IO supervision, the PCM team will coordinate a group of project management personnel including, schedulers, estimators and risk analysts.

The anticipated number of man-days for the first year should be around 440 to 880.

4.3 Risk Management and Cost Estimating (Lot 3)

- Risk Management

The IO PCO is responsible for conducting risk identification, qualitative and quantitative risk analysis of project scope, schedule and cost, and risk response planning, in close collaboration with the technical departments and IO-DA.

The Contractor will have to perform a quantitative and qualitative integrated assessment of event risks across the entire project, to assess the uncertainties associated with the baseline activities and to assist in the implementation of the risk mitigation actions.

The results of the assessment will be used as a management tool to optimize the project baseline planning and to prioritize key project activities and mitigation actions. The risks will be identified and quantified using an approach described in the ITER Risk Management Plan and Risk Management Procedure.

The Contractor will have to perform Quantitative “Monte Carlo” simulations using Primavera Risk Analysis software to identify potential areas of high risk and uncertainty and to calculate the appropriate amount of time and cost contingency that the project should retain.

The anticipated number of man-days for the first year should be around 440 and 660.

- Cost Estimating:

The Contractor will have to provide support for the development of high quality cost estimates that capture the resource quantities and predict the expected costs required to complete IO work scope. It will include the development and implementation of estimates for the WBS areas they are assigned to.

New estimates are used for project change request, procurement tender purposes and for updating lifecycle baseline. They include costs for labour, material, equipment, subcontracts and other direct costs. They are developed and maintained in a cost estimating database. Typical cost estimate data includes: scope descriptions, assumptions and exclusions, basis of estimate, stage of definition and methodology, drivers and reference documents, and resource estimate detail. Principles of cost estimating are based on the AACE and GAO standards.

The Contractor will have to review and validate cost estimates prepared by IO technical Departments.

The anticipated number of man-days for the first year should be around 440 to 880.

4.4 Project Baseline Change Control and Project Management Systems Administration (Lot 4)

- Project Baseline Change Control

The IO PCO is responsible for maintaining baseline configuration control using established changed management procedures. Baseline change management ensures that changes to the approved baseline (i.e., technical, scope, schedule, and cost) are documented and approved as required by the ITER Organization.

The baseline change management process consists of defining the change and assessing its impact (including risk) on the project's scope, schedule, cost and technical design; obtaining required approvals; and implementing the change into the baseline.

A project change request is prepared and processed through the appropriate change boards depending on change threshold criteria. Changes to the baseline will be developed, reviewed, and approved in accordance with the established ITER Project Change Control procedure and PCO Working Instructions. Changes to the Procurements Arrangements and In-Kind credit allocation for the in Kind contributions fall under project baseline change control.

The Contractor will have to administrate the change control process within PCO assuring that changes are correctly handled by the responsible Project Controls Managers, Planners, and Cost Estimators. The Contractor will also have to support the Planning and scheduling by implementing approved changes into the Primavera Baseline schedules.

The anticipated number of man-days for the first year should be around 220 to 440.

- Project Management System Administration:

The Contractor will have to provide technical support for the development, implementation, and maintenance of the ITER project management systems. These project management systems include Oracle Primavera (P6); Systems, Applications, and Products (SAP); Management Information System (MIS); Oracle Primavera Risk Analysis; Deltek Cobra, Cost Engineering Cleopatra Enterprise and the Project Management Portal and Scope Database (SharePoint).

It includes the following tasks:

- Definition of technical requirements for any system related development including the creation of interfaces among the ITER project management systems as described above
- Follow up and support to the IO IT division during the development phase for each requirement
- Facilitation of the validation and testing of those developments by the PCO team as per the agreed requirements
- Dedicated administration of those project management systems that are within the full responsibility of PCO (Oracle Primavera, Cost Engineering Cleopatra Enterprise and Deltek Cobra)

The anticipated number of man-days for the first year should be around 220 to 440.

5 Experience

The below detailed experience per lot is considered necessary to perform the required tasks. It will be further refined in the next stages of the Call for Tender.

5.1 Planning & Scheduling scope (Lot 1)

- Development, maintenance and execution of complex schedules in an enterprise multi-project environment with Oracle Primavera
- Rigorous change control process and management of schedule baselines with Primavera.

5.2 Project Controls Management scope (Lot 2)

- Experience in the implementation and management of large complex projects using Earned Value Management to measure and report project performance.

5.3 Risk Management and Cost Estimating scope (Lot 3)

- Risk Management scope:
 - Wide experienced in risk analysis for complex project from a strategic level.
 - Experience in the development and implementation of risk mitigation actions
- Cost Estimating scope:
 - Experience in the implementation and management of large complex projects using Earned Value Management to measure and report project performance.
 - Certification by AACE or ICEC or equivalent and knowledge of P6 and SAP.

5.4 Project Baseline Change Control and Project Management Systems Administration (Lot 4)

- Project Baseline Change Control
 - Experience in the execution of integrated baseline change control for Scope, Schedule and Cost for complex projects using Earned Value Management, administrating and executing the evaluation, approval and implementation of changes.
- Project Management Systems Administration
 - Experience in the implementation and management of large complex projects using Earned Value Management to measure and report project performance.
 - Experience in the management and administration of Oracle Primavera and Deltek Cobra in a multiple user / multiple role environment.

6 Acronyms

DA: Domestic Agencies
DWS: Detailed Work Schedule
IO: ITER Organization
kIUA: kilo ITER Unit of Account
PA: Procurement Arrangement
PCM: Project Controls Management
PCO: Project Control Office
PCR: Project Change Request
PM: Project Management
PMS: Project Management Support
PRMS: Project Management Reporting System
PT: Project Teams
SAP: Systems, Applications, and Products
TRO: Technical Responsible Officer
WBS: Work Breakdown Structure

7 Timetable

The tentative timetable is as follows:

Call for nomination submission	June 2016
Pre-qualification submission	July 2016
Tender submission	September 2016
Award notification	End October 2016
Contract signature	November 2016

8 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 groupings shall be presented at the pre-qualification stage. The tenderer's composition cannot be modified without the approval of the ITER Organization after the pre-qualification.

Legal entities belonging to the same legal grouping are allowed to participate separately if they are able to demonstrate independent technical and financial capacities. Candidates (individual or consortium) must comply with the selection criteria. The IO reserves the right to disregard duplicated reference projects and may exclude such legal entities from the pre-qualification procedure.