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EXTERNAL REFERENCE / VERSION

#### **Technical Specifications (In-Cash Procurement)**

## **Technical Specification - Call for Expertise CMG support**

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## 1 Purpose

This specification is for the services of one Construction Engineer (hereafter referred to as the Contractor's Engineer - CE) to:

- Identify and propose to the IO potential improvements for the way to organize the Construction Management as-Agent (CMA) contract. This includes analyses on the compliance of the CMA resources ramp-up versus the Construction activities on site, the assessment of pertinence of the current KPIs and the setting of complementary CMA performance indicators (for instance regarding the documentation production). In order to get a complete knowledge on the way the contract is operated, the CE will take part in the management of the contract as a direct support to the IO contract manager, in particular in view of the preparation of the Contract amendment 6 (and associated documentation) to be placed in November 2019.
- Provide expertise to the Construction Department (CST) in the frame of the "In-Depth Independent Review on the IO's Assembly and Installation Strategy" (IRR), with specific application of the IRR areas on the Construction Management as Agent.
- Support the IO Contract Manager in the preparation of the Period 2 of the CMA contract.

## 2 Scope

#### 2.1 Overview

In the frame of the ITER Construction, the CMA has a major role in the preparation, the coordination and the supervision of the works.

The role of CMA can be summarized as follows:

- Contract Management
- Project Management
- Construction preparation
- Site Coordination
- Works Supervision
- Completion Activities

This contract being an important one in IO, permanent improvement is searched for by IO/CST. Based on its expertise, the CE will perform an analysis on the strength and weaknesses of the current contract operation. He will then identify and propose to the IO potential improvements, including complementary progress indicators.

As the "In-Depth Independent Review on the IO's Assembly and Installation Strategy" may consider the assessment of the CMA role, CST is looking in advance to potential questions and associated answers, corrective actions and/or mitigation plans.

The requested expertise includes also the support to the IO CMA contract Manager for the preparation of the next steps of the contract, which are the Amendment 6 to be placed in November 2019, and the future Period 2 that will start August 2020.

For this mission, all work shall be recorded as Deliverables, comprising documents submitted by the Contractor for IO approval, in the format agreed based on information availability and the specific purpose/scope of the Deliverable requested.

## **3** Definitions

CCRBConstruction Contract Review BoardCEContractor EngineerCMAConstruction Manager as AgentCSTConstruction DepartmentDADomestic AgencyITPInstruction to ProceedIDMITER Document Management (system)INBInstallation Nucléaire de Base
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CSTConstruction DepartmentDADomestic AgencyITPInstruction to ProceedIDMITER Document Management (system)INBInstallation Nucléaire de Base
DADomestic AgencyITPInstruction to ProceedIDMITER Document Management (system)INBInstallation Nucléaire de Base
ITPInstruction to ProceedIDMITER Document Management (system)INBInstallation Nucléaire de Base
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INB Installation Nucléaire de Base
IO ITER Organization
KPI Key Performance Indicators
PBS Plant Breakdown Structure
PCD Procurement and Contract Division
PIA Protection Important Activity
PIC Protection Important Component
PRO Procurement Responsible Officer
QA Quality Assurance
RO Responsible Officer (IO)
SQEP Suitably Qualified and Experienced Personnel
WBS Work Breakdown Structure

For a complete list of ITER abbreviations see: ITER Abbreviations (2MU6W5).

## 4 References

- [1] CMA Contract ref IO/16/CT/4300001334 (SUJV75) and annexes CONFIDENTIAL-
- [2] Technical Specifications IO requirements for the Construction Management as Agent (CMA) Service Contract (RMMEM6 latest version)
- [3] Work Breakdown Structure for Site Construction Phase I (QPY7MQ) [latest version]
- [4] Internal Regulations (27WDZW v2.2)
- [5] In-Cash Procurement Technical and Management Documentation Exchange and Storage Working Instruction (G8UMB3 v3.0)
- [6] ITER Procurement Quality Requirements (22MFG4 v5.0)
- [7] Requirements for Producing a Quality Plan (22MFMW v4.0)
- [8] Order dated 7 February 2012 relating to the general technical regulations applicable to INB EN (7M2YKF)

## **5** Duration

The duration shall be for 6 months (a maximum of 110 working days) from the starting date defined by the Contract.

## 6 Work Description

The Contractor will provide support to CMG on IO site, Cadarache, France, due to the need for frequent liaison and discussion with ITER Staff. The scope of the mission can be split in 3 main missions presented below:

#### 6.1 CMA contract improvements proposals

The CE shall:

- Follow-up the ITER Organization (IO)'s requirements and in particular, prepares reports and dashboards to demonstrate compliance between contractual requirements and produced deliverables.
- Analyse the links between the number and types of deliverables, resources and costs and define relevant project indicators to assess the performance of the CMA (in particular in the frame of the potential CCRB demands)
- Assess the CMA documentation (such as Monthly reports) in IDM
- For the Contractual communication (CEMAR Tool), prepare contractual documentation, general communication and replies to the CMA's correspondence, change requests and early warnings.
- Monitor the CMA's activities in terms of preparing analyses of key stakeholders' satisfaction, Risks and Opportunities, cost control and global performance including Key Performance Indicators.
- Support IO's contract manager duties such as audit, analyses or document management to manage ITER construction project schedule and cost in respect with existing Management Quality Program (MQP), safety rules and regulations;

# 6.2 Independent Review on IO's Assembly and Installation Strategy (CMA contract)

With a specific focus on the IO/CMA roles and responsibilities, the CE shall:

- Prepare the part related to the CMA contract for the independent review on Assembly and Installation and regularly report on the progress and any issues to the IO CMA contract manager; this action includes the follow up on the implementation of the defined actions. The IRR is identifying the main domains to be considered for this CFE:
  - The resource strategy and the roles and responsibilities of the different participants in the Assembly and Installation Strategy (including required skills), and the flexibility to adapt to changes in the assembly planning while keeping cost and schedule under control;
  - The IO's approaches to quality and licensing provisions (e.g. compliance with French regulations) applied to the Assembly and Installation activities;
  - The IO's strategy on preparation of construction work scope and packages consistent with Assembly and Installation planning;
  - Procurement strategy for the Assembly and Installation activities, in particular concerning contract administration and follow-up with a view to ensuring on-time delivery of contractors;
  - $\circ$  Strategy for risk management with regard to the Assembly and Installation activities.

#### 6.3 Preparation of the future evolutions of the CMA contract

As the CMA contract context and scope [1] and [2] has evolved through time, and as the contract structure is linked to the IO Construction organization, the CE shall:

- Prepare the CMA contract amendment 6 (and associated documentation e.g. for instance the update of the RMMEM6 document, ITPs) in collaboration with Technical Teams (CTs), Project Control Office (PCO), Procurement and Contracts Division (PCD) and Finance and Budget Division (FBD).
- Support the preparation of the future Period 2 of the CMA contract in a structured way, including projection for the P2 period of the current model, alternative scenario and associated pros and cons, including the overall cost estimate.

## 7 Responsibilities

#### 7.1 IO Responsibilities

The IO shall appoint a RO for the Contract, who will be the point of contact for all technical matters, and a Procurement Responsible Officer (PRO) for all contractual and commercial matters. The RO shall participate to a Monthly Meeting with the Contractor on work performed.

In addition, IO shall provide:

- Office accommodation;
- Computing facilities and ITER laptops, access to IDM and software required to fulfil specified functions;
- Access to requirements documents, presentations and other information explaining installation concepts on which current schedules are based (where available);
- Access to IO information and reports as available/requested;
- Access to construction site;
- Any input information needed by the Contractor for production of the various Deliverables.

#### 7.2 Contractor Responsibilities

The Contractor shall:

- Strictly implement the IO procedures, instructions and use IO templates, where provided;
- Organise work in an efficient way according to the workload and monthly commitments and objectives;
- Organize the contract monthly meeting;
- Report to the RO any issues during the performance of the Contract which require IO intervention or decision including potential delays in the submission of Deliverables;
- Provide monthly reports, minutes of meetings, records of decisions and other Deliverables as required in section 8;

Contractor's personnel shall be bound by the rules and regulations governing the IO ethics, safety and security – refer [4].

In addition, the CE will be requested to sign a non-disclosure agreement committing him to confidentiality on the information transmitted to and prepared by him.

## 8 List of Deliverables and Due Dates

The contract will be based on deliverables gathered in a specific monthly progress report.

Progress Reports: The reports shall include:

- 1) Progress Meeting minutes.
- 2) An analysis of the CMA Monthly Contract Performance Report, with regard to :
- The relation between deliverables and resources,
- The relation between deliverables and cost.
- Other KPIs
- 3) A specific chapter on Independent Review actions.
- 4) A specific chapter of CMA contract potential improvements and proposals (ad'hoc)
- 5) A report on CEMAR Communications, issues raised and implemented actions.

The monthly report shall:

- Be submitted monthly, starting one month after the kick-off of the contract.
  - Summarise the activities completed in the month concerned including:
    - Issue tracking: new issues identified, actions taken, issues closed;
    - Recommendations & Reports: recommendations or reports.
- Include IDM references of documents reviewed/produced;
- Highlight specific issues requiring further action / summarise improvement opportunities;

**Specific report**: the report linked to the proposals for Period 2 will be delivered separately from the others.

Note: All this documentation containing potentially confidential information, a specific nondisclosure agreement will be requested to be signed by the CE before the start of the mission.

Deliverable Ref.	Deliverable Description	Due Date
D1	Monthly report	T0 + 1M
D2	Monthly report	T0 + 2M
D3	Monthly report	T0 + 3M
D4	Monthly report	T0 + 4M
D5	Monthly report	T0 + 5M
D6	Monthly report	T0 + 6M
D7	Proposal for CMA contract P2 period	T0 + 5M

Note: D6 shall include a draft update of the RMMEM6 technical specification in preparation of the Contract Amendment #6.

## 9 Deliverables Acceptance Criteria

Deliverables shall be submitted in accordance with [5]. The following criteria shall be the basis of the acceptance of the successful accomplishment of the work.

#### **Delivery Date Criteria**

On-time delivery of Deliverables according to the dates provisionally defined in Section 8.

#### **Report and Document Review Criteria**

Reports and Deliverables shall be stored in the ITER Organization's document management system, IDM, by the Contractor for acceptance. A named ITER Organization's TRO is the Approver of the delivered documents. The Approver can nominate or delegate one or more Reviewers(s) in the area of the Deliverable's expertise. The Reviewer(s) may ask for modifications to be made to the report in which case the Contractor must submit a new version. The acceptance by the Approver is an acceptance criterion for completion of a Deliverable.

**10 Specific Requirements and Conditions** 

The work will require qualified Engineers with suitable proven technical skills commensurate with the work scope of this Specification. It is the responsibility of the Contractor to ensure that work is performed by Suitably Qualified and Experienced Personnel (SQEP) and the suitability of Contractor resources shall be demonstrated by the Contractor in any proposals.

The following general requirements are applicable:

- The working language of the project is English, and all contributors are expected to be able to communicate clearly and effectively both orally and in writing;
- Experience in international projects;
- Proficient command of the Microsoft Office packages;
- Experience in Tender package compilation and procurement;
- Prior knowledge of and experience on the ITER project.

The following specific requirements apply for respective resource: Construction Engineer

- Level of study: Master or equivalent degree;
- Diploma : Construction or Project Management, Engineering
- Technical experience/knowledge: Knowledge of Project Management methodologies.
- A certificate/qualification in Project Management would be beneficial.
- The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.
- At least 8 years' experience in contract management activities for a nuclear or other highly regulated construction project is required;
- Experience in reviewing and producing technical & contractual documents;
- Experience in using International Federation of Consulting Engineers (FIDIC) or similar international standards forms of contract is preferred;
- Experience in public procurement would be an advantage.

## 11 Work Monitoring / Meeting Schedule

#### **11.1 Kick-off Meeting**

A Kick-off Meeting shall be arranged by the TRO approximately one week after the commencement of the Contract for the purpose of confirming background documentation, plans, schedules defining the work.

The record of Kick-off Meeting minutes shall be submitted by the Contractor as a Deliverable.

#### **11.2 Progress Reporting**

Personnel in charge of preparing the Deliverables will be expected to attend Monthly Progress Meetings.

Monthly Progress Meetings will be arranged by the CE.

The main purpose of the Progress Meetings between the ITER Organization/CMG Department and the Contractor is to:

- Review the completed activities and assess the progress made;
- Permit fast and consensual resolution of unexpected problems;
- Agree the specific tasks and corresponding deliverables to be completed in the month ahead;
- Review the technical issues and opportunities

The record of Progress Meeting minutes shall be submitted by the Contractor as Deliverables.

Monthly reports shall be submitted by the Contractor for IO approval. Monthly Reports are to include a break-down of Deliverables, Contractor activities and actual / potential issues.

## 12 Quality Assurance (QA) Requirements

The organisation conducting these activities should have an ITER approved QA Program or an ISO 9001 accredited quality system. Alternatively the contractor may opt to follow the IO QA processes. In this case, the requirement to prepare a Quality Plan is not applicable. Specific training shall be provided by IO.

The general requirements are detailed in [6].

Prior to commencement of the Contract, a Quality Plan (where applicable) must be submitted for IO approval giving evidence of the above and describing the organisation for the Contract, the skill and experience of workers involved in the study and giving details of who will be the independent checker of the activities, if required - see [7].

Documentation developed as the result of this Contract shall be retained by the Contractor for a minimum of 5 years and then may be discarded at the direction of the IO.

## **13 Safety Requirements**

ITER is a Nuclear Facility identified in France by the number-INB-174 ("Installation Nucléaire de Base").

For Protection Important Components and in particular Safety Important Class components (SIC), the French Nuclear Regulation must be observed, in application of the Article 14 of the ITER Agreement.

In such case the Suppliers and Sub-contractors must be informed that:

The Order 7th February 2012 applies to all the components important for the protection (PIC) and the activities important for the protection (PIA) – refer [8]

The compliance with the INB-order must be demonstrated in the chain of external contractors.

In application of article II.2.5.4 of the Order 7th February 2012, contracted activities for supervision purposes are also subject to a supervision done by the Nuclear Operator.