**TECHNICAL QUESTIONNAIRE**

**MARKET SURVEY – REF. IO/MSY/19/DCA/PMT**

**DIVERTOR CASSETTE ASSEMBLY INTEGRATION**

Firms interested in participating to this market survey shall return a completed questionnaire to the following email address [philippe.mousset@iter.org](mailto:philippe.mousset@iter.org) , no later than 13 September 2019.

Note that this is not a Call for Nomination request. At this moment the ITER Organization (IO) is preparing a contract and procurement strategy for this project.

*Before beginning this market survey, please refer to the ‘’Divertor Cassette Assembly Integration’’ Technical Description Overview.*

# General information about the Company / Institute compiling the questionnaire

**Company Name**: …………………….

|  |  |  |  |
| --- | --- | --- | --- |
| **Contact Person** | **Name + Title** | **Email address** | **Telephone** |
| Commercial Matters: |  |  | + |
|  |  |  |
| Technical Matters: |  |  | + |
|  |  |  |

***Main activities***

|  |  |
| --- | --- |
| ***Main activities*** | ***Description*** |
|  |  |
|  |  |
|  |  |
| ……………………. |  |

***Turnover***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Scope*** | ***Turnover 2016*** | ***Turnover 2017*** | ***Turnover 2018*** | ***Number of employees*** |
| All activities |  |  |  |  |
| *In the field of ITER related works* |  |  |  |  |

# Facilities and Resources

* 1. In the table below, identify the type of resources your company would use to complete the different stages. The resources do not have to be currently available. They can be planned and developed in accordance with the contract.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Internal** | | | **Consortium** | | | **Sub-supplier** | | |
|  | **P** | **F** | **E** | **P** | **F** | **E** | **P** | **F** | **E** |
| Stage 1: Prototype Standard CA |  |  |  |  |  |  |  |  |  |
| Stage 2: Prototype Non-Standard CA |  |  |  |  |  |  |  |  |  |
| Stage 3: Series Standard CA |  |  |  |  |  |  |  |  |  |
| Stage 4: Series Non-Standard CA |  |  |  |  |  |  |  |  |  |
| Stage 5: Storage |  |  |  |  |  |  |  |  |  |
| P: Personnel – F: Facility – E: Equipment | | | | | | | | | | |

* 1. LOCATION of INTEGRATION SITE: A maximum road distance of 100km between the Integration Site and ITER Site is under consideration. Considering the size of the facility and equipment (i.e 5 axis milling machine) needed to prepare the Integration Site, how would your company meet this requirement in terms of location?

* 1. 2.3 ALTERNATIVE: If the 100km requirement for the Integration Site is relaxed, how would your company ensure the integrity and leak tightness of a CA from your proposed location to the ITER Site? Please describe methods beyond the use of accelerometers, quality procedures for packaging and handling and a controlled transportation route.

* 1. SEPARATE PROTOTYPE AND INTEGRATION SITES: An independent Prototype Site for Stage 1 could be acceptable to accelerate Stage 1 activities and give time to develop the actual Integration Site for Stages 2-5. Note that all Stages 1-5 would still be the responsibility of a single Integrator, Prototype Site could be further than 100km from ITER and Integration Site would still need to be within 100km of ITER Site. Would this be a more realistic approach for your company? Please elaborate your response.

**YES**  **NO**

# Contract Scope and Execution

* 1. Instructions to Proceed and Readiness Reviews are management tools expected to mitigate the risks associated with the schedule and delivery of the Free-Issued Items from the DA/IO to the Integrator. In your company’s experience, are these tools sufficient to mitigate the impact of delayed Free-Issued Items on the resource loading of the Integrator?

**YES**  **NO**

If YES, please elaborate:

If NO, please propose other tools or actions to mitigate the schedule risks and ensure efficient use of Integrator resources:

* 1. Due to the interdependencies of the Stages, a single Integrator is preferred to facilitate the use of procedures, qualifications and lessons learned from earlier Stages to the later Stages, particularly from Stage 1 to Stages 2-4. However, it may be possible to separate Stages 1, 2 and/or 5 from Stages 3-4. Would it be a more realistic approach for your company to participate in the Call for Tender if IO separated the Stages into different contracts? Keep in mind that the contractor for Stages 1-2 would be required to share all procedures, technologies and lessons learned with potential competitors during the Call for Tender for later Stages.

**YES**  **NO**

If YES, please elaborate and describe which Stages and why your company would prefer such a strategy.

If NO, please elaborate:

* 1. There will be many stakeholders involved with the delivery of the Free Issued Items from all over the world and flexibility will be required to address technical and cultural issues. Describe issues your company has experienced in the past or can foresee for this contract and how to address them.

* 1. If the performance of the functional tests and troubleshooting of the Diagnostics and Instrumentation were included in the Integrator scope, what experience does your company have for this scope?

* 1. In addition to the risks associated with the schedule, non-conformities and stakeholder management, what other type of risks does your company foresee? What type of strategy, action or tool can help mitigate such risks?

|  |  |
| --- | --- |
| Risk | Mitigation Proposal |
| Risk #1: | … |
| Risk #2: | … |
| … | … |

# Contract Duration

* 1. Would your company be interested and ready to respond to a Call for Tender in 2019 Q4 for a ~10 year contract that includes the full scope of Stages 1-5?

**YES**  **NO**

If NO, please explain the exceptions:

* 1. At the signing of the contract, the information for each Stage will be at differing maturities. It is not possible to define all installation work packages upfront and order the work packages on a piece by piece basis. To mitigate these risks, bidders will be required to provide an indicative lump sum cost and indicative variance cost to address unknowns and non-conformities on a per Stage basis. These costs would be re-evaluated based on the prototype work and the maturing information and components. Nevertheless, an overall (and/or per Stage) Guaranteed Maximum Price would need to be respected. Would your company be interested in this type of contract?

**YES**  **NO**

Please elaborate your response or describe other contract schemes:

* 1. What experience does your company have with contracts that include incentive schemes? For example, incentives related to progressive reduction of costs of repetitive work (Stages 3-4), quality of procedures, successful implementation of lessons learned and dealing with differing maturities of information.

# General Comments

Please indicate any other information that may be relevant for this market survey.

# Meeting with ITER

The purpose of this Market Survey process is to facilitate ITER Organization in the finalization of the procurement and contract strategy for the *Divertor Cassette Assembly Integration* contract. ITER Organization is interested to meet companies to investigate relevant fields of activity mentioned in this questionnaire. *Are you interested in meeting representatives from the ITER Organization?*

**YES**  **NO**

|  |  |
| --- | --- |
| Signature: | COMPANY STAMP |
| Person to Contact: |
| Title: |
| Email: |
| Tel: |
| Date: |