***Neutronics Analysis of ITER EC Upper Launcher***

***FINANCIAL OFFER***

All prices shall be in Euros net of all duties and taxes. As an international organisation the ITER Organization is exempt from all taxes and duties. Applicable taxes (if any) shall be shown separately.

The **Financial Offer** shall be submitted in the basis of the following:

Having examined all the Documents attached to this Call for Expertise, including the Scope of Services and the Technical Specification for the performance of the Services, and having examined all conditions and factors which might in any way affect the cost or time of performance thereof, we the undersigned, offer to complete the Services upon the terms and conditions set forth in the Proposal Documents for the following price:

**Total Contract Price for the Firm part: EUR\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

| **D** | **Description in Technical Specifications ITER\_D\_WQC9VW v1.2 dated 21 June 2018** | **Date** | **Price (EUR)** |
| --- | --- | --- | --- |
| D1 | Scoping analysis with the UL MCNP model provided by IO. This  analysis should include:  - A first estimation of SDDR with the UL MCNP model  - First set of recommendations for proposals of improved shielding. A list of cases to be run under the scope of this contract is to be agreed during this phase among IO TRO and the contractor. | T0\*+2 months |  |
| D2 | Provide an MCNP model of the UL first wall panel for nuclear heating evaluation | T0+3 months |  |
| D3 | Provide scoping analysis for the optimization of the SDDR in the  port interspace with the list of cases agreed in D1 | T0+4 months |  |
| Hold Point | IO will implement the design recommendations in the UL model | T0+5 months |  |
| D4 | Build radiation transport model (MCNP model) of the UL and  integrate it into the last version of C-Model. The UL MCNP  model should include all relevant UL structures:  i. UL plug (CAD provided by IO TRO)  ii. Port interspace structures (CAD provided by IO TRO)  iii. Bio-shield plugs (CAD provided by IO TRO) | T0+7 months |  |
| D5 | Global calculation to estimate the radiation conditions in UL plug and associated SDDR at the UL interspace. This calculation will  be done considering the worst case for the UL in ports 12, 13, 15,  16 in terms of SDDR at the UL interspace. This case will be selected by IO TRO in collaboration with NIU. When applicable, neighbouring ports (MCNP models) required to perform the global analysis will be provided by IO.  i. Nuclear heating in UL plug components  ii. He production and dpa in UL plug components  iii. Activation calculations (decommissioning)  iv. Nuclear heating in VV and ITER magnets  v. SDDR estimation in port interspace by means of D1S  method | T0+9 months |  |
| D6 | Scoping analysis with previous model including additional shield  blocks (outside of the UL boundaries) in order to optimize  SDDR. The additional shield blocks will be provided by IO as  part of the general model. The list of cases to be run will be  agreed upon the contractor and IO to be consistent with the time  available and the needs of shielding identified along the  execution of the contract. | T0+12 months |  |
|  | **TOTAL FIXED PRICE (EUR)** | |  |

\*T0 = kick-off meeting

The price is fully inclusive of the costs for deliverables, attendance to the meeting(s), reporting as required in the Technical Specifications. Also it includes all expenses that are necessary to deliver the services including travel, accommodation, daily subsistence allowances (all if applicable) and any other conceivable expenses that are required to successfully complete the work.

Signature:

Date:

***COST BREAKDOWN TABLE***

In addition to providing your price for the deliverable in the table above please could you provide a cost breakdown of the manpower and/or other resources you intend to provide to complete this work. Your cost breakdown should be based on the current fee rates that are applicable to the framework contract for which this task request relates. The table below is an example, however you can provide your own version or expand on the table below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Description / profile**  **(Manpower)** | **Rate in €**  **incl all Costs** | **Rate in €**  **incl all Costs** | **Workload (Days)** | **Workload (Days)** | **Total €** |
| On Site | Off Site | On Site | Off Site |  |
| D1 |  |  |  |  |  |  |
| D2 |  |  |  |  |  |  |
| D3 |  |  |  |  |  |  |
| D4 |  |  |  |  |  |  |
| D5 |  |  |  |  |  |  |
| D6 |  |  |  |  |  |  |
|  | **TOTAL** |  |  |  |  |  |

Fee rates must include all expenses that are necessary to deliver the services including travel, accommodation, daily subsistence allowances and any other conceivable expenses that are required to successfully complete the work.

***NB:*** The cost breakdown table should be signed, dated and submitted separately from the table of deliverables.

Signature:

Date: