

+Call for Expertise: エキスパート募集

IO References: IO/24/CFE/10029839/CPT

"Optics and Radio-Frequency Engineering Expertise"

(光学と高周波エンジニアリングエキスパート支援)

IO 締め切り 2024 年 10 月 14 日(月)

概要：

イーター機構（IO）では、上記タスクの支援をいただく作業を ITER 参加極の企業・機関等から募集します。応募を希望される企業・機関等は、所定の期限までに応募書類を直接 ITER 機構の下記担当までご提出下さい。

○ 今回の募集に関する書類は以下の通りです。

- ・ 招待状
- ・ 技術仕様書
- ・ 履歴書（CV）テンプレート
- ・ 見積もり提案書テンプレート
- ・ 誓約書
- ・ 守秘義務に関する誓約書(契約締結時に署名されること)

○ 応募者は、以下の申込用紙を ITER 機構に直接送付願います。

- ・ 履歴書（ITER 機構の招待状と技術仕様書で規定した要求事項と基準を満足していることを示す経験について明記されていること）
- ・ 誓約書（署名入り）
- ・ 見積もり提案書

（※提出書類は pdf ファイル 1 本にまとめて送付願います。）

○ 応募書類の提出先

ITER 機構の下記担当者宛に電子メールにて送付：

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○はじめに

この事前情報通知 (PIN) のは、供給契約の審査および実行につながる公開入札調達プロセスの最初のステップです。この文書の目的は、作業範囲と入札プロセスに関する技術的内容の基本的な概要を提供することです。

○背景

ITER プロジェクトは、欧州連合 (EU) (EURATOM を代表とします)、日本、中華人民共和国、インド、韓国、ロシア連邦、米国の 7 カ国が共同出資する国際的な研究開発プロジェクトで、ITER 機構 (IO) の本部 (HQ) があるヨーロッパ、フランス南部のサン・ポール・レ・デュランスで建設されています。

ITER プロジェクトの組織面および技術面の詳細については、www.iter.org を参照してください。

○作業範囲

「光学と高周波エンジニアリングエキスパート支援」と題した本契約の目的は、技術仕様書に記載されたサービスの提供を調達することです。詳細は技術仕様書 BY3C67_v1.2 (本 PIN 文書の附則 I) を参照下さい。

○調達プロセスと目的

目的は、競争入札プロセスを通じて供給契約を落札することです。

この入札のために選択された調達手続きは公開入札手続きと呼ばれます。

オープン入札手順は、次の 4 つの主要なステップで構成されています。

➤ ステップ 1-事前情報通知 (PIN)

事前情報通知は公開入札プロセスの第一段階です。IO は、関心のある候補企業に対し、10 作業日までに担当調達担当官に以下の情報を提出し、競争プロセスへの関心を示すよう正式に要請します。

-候補会社の名称

-登録国

-連絡先の名前、電子メール、タイトル、電話番号。

特に注意:

関心のある候補企業は、IO Ariba の電子調達ツール「IPROC」に登録してください (まだ登録していない場合)。手順については、<https://www.iter.org/fr/proc/overview> を参照してください。

Ariba (IPROC) に登録する際には、お取引先様に最低 1 名の担当者の登録

をお願いします。この連絡担当者は、提案依頼書の発行通知を受け取り、必要と思われる場合は入札書類を同僚に転送することができます。

- ステップ 2-入札への招待
関心のある候補企業の完全登録後、提案依頼書（RFP）を「IPROC」に掲載します。この段階では、担当の調達担当者に関心を示し、かつ IPROC に登録している関心のある候補企業は、RFP が公表された旨の通知を受けることができます。その後、RFP に詳述されている入札説明書に従って提案書を作成し、提出します。

このツールに登録されている企業のみが入札に招待され、登録されている企業は、自社の名前でのみ提案を提出できます。

- ステップ 3-入札評価プロセス
入札者の提案は、IO の公平な評価委員会によって評価されます。入札者は、技術的範囲に沿って、かつ、RFP に記載された特定の基準に従って作業を実施するために、技術的遵守を証明する詳細を提供しなければなりません。
- ステップ 4-落札
認定は、公開されている RFP に記載されている、コストに見合った最適な価格または技術的に準拠した最低価格に基づいて行われます。

○概略日程

概略日程は以下の通りです：

マイルストーン	暫定日程
IOWeb ページと DA との連絡により 事前指示書（PIN）の発行	2024 年 10 月 3 日
関心表明フォームの提出	2024 年 10 月 14 日
IPROC での提案リクエスト（REP）の発行	2024 年 10 月 21 日
IPROC で入札提出	2024 年 11 月 8 日
入札評価と契約授与	2024 年 11 月 E
契約調印	2024 年 12 月中旬
契約開始	2025 年 1 月初旬

○契約期間

予想される契約期間は、12 か月です。

例外的に本契約では2名のエキスパートが両名ともパートタイム勤務となります。

○経験

入札者は、IOの技術的要件に沿った期待される支援を提供するにあたり、その知識と経験と能力があることを英語で示す必要があります。ITERでの使用言語は英語です。流暢でプロレベルが必要です（スピーキングとライティング共に）。

○候補

参加は、個人またはグループ/コンソーシアムに参加するすべての法人に開放されます。法人とは、法的権利及び義務を有し、ITER加盟国内に設立された個人、企業又は機構をいいます。

法人は、単独で、またはコンソーシアムパートナーとして、同じ契約の複数の申請または入札に参加することはできません。共同事業体は、恒久的な、法的に確立されたグループ又は特定の入札手続のために非公式に構成されたグループとすることができます。

コンソーシアムのすべての構成員（すなわち、リーダーと他のすべてのメンバー）は、ITER機構に対して連帯して責任を負います。

コンソーシアムとして許可されるために、その点で含まれる法人はコンソーシアムの各メンバーをまとめる権限をもつリーダーをもたなければなりません。このリーダーはコンソーシアムの各目メンバーのために責任を負わなければなりません。

指名されたコンソーシアムのリーダーは、入札段階でのカバーレター（入札への招待）で、コンソーシアムのメンバーの構成を説明する予定です。その後、候補者の構成は、いかなる変更もITER機構に通知することなく変更してはなりません。かかる認可の証拠は、すべてのコンソーシアムメンバーの法的に授権された署名者が署名した委任状の形式で、しかるべき時期にIOに提出しなければなりません。

どのコンソーシアムメンバーもIPROCに登録する必要があります。

【※ 詳しくは添付の英語版技術仕様書「**Optics and Radio-Frequency Engineering Expertise for 55.E6**」をご参照ください。】

ITER 機構のウェブサイト

<http://www.iter.org/org/team/adm/proc/overview> からもアクセスが可能です。

「核融合エネルギー研究開発部門」のHP：<http://www.fusion.qst.go.jp/ITER/index.html>
ではITER機構からの各募集（IO職員募集、IO外部委託、IOエキスパート募集）を逐次更新しています。ぜひご確認ください。

PRIOR INFORMATION NOTICE (PIN)

IO/24/CFE/10029839/CPT

Optics and Radio-Frequency Engineering Expertise for 55.E6

Procurement Officer in charge:

Chloé PERRET - EXT

chloe.perret@iter.org

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Abstract.

The purpose of this PIN is to provide prior notification of the IO's intention to launch a competitive Call for Expertise process in the coming weeks. This PIN provides some basic information about the ITER Organisation (the "IO"), the technical scope for this tender, and details of the tender process.

1 Introduction

This Prior Information Notice (PIN) is the first step of a Call for Expertise Procedure leading to the award and execution of a Service Contract.

The purpose of this document is to provide a basic summary of the technical content in terms of the scope of work, and the tendering process.

2 Background

The ITER project is an international research and development project jointly funded by its seven Members being, the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. ITER is being constructed in Europe at St. Paul–Lez-Durance in southern France, which is also the location of the headquarters (HQ) of the ITER Organization (IO).

For a complete description of the ITER Project, covering both organizational and technical aspects of the Project, visit www.iter.org.

3 Scope of Service

The purpose of this Contract titled “**Optics and Radio-Frequency Engineering Expertise for 55.E6**” is to procure the provision of services described in the Technical Specifications, ref. **BY3C67_v1.2 (ANNEX I in this PIN document)**.

4 Procurement Objective & Process

The objective is to award a Contract through a competitive bidding process.

The procedure is comprised of the following four main steps:

- Step 1- Prior Information Notice (PIN)
The Prior Information Notice is the first stage of the process. The IO formally invites interested candidate companies to indicate their interest in the competitive process, within **10 calendar days**, by returning to the Procurement officer in charge the following information by the date indicated under paragraph 5 below:
 - Name of candidate company
 - Country of registration
 - Point of contact name, email, title, and phone number.

Special attention:

Interested candidate companies are kindly requested to register in the IO Ariba e-procurement tool called “IPROC”, if not so done yet. The process on how to do is described at the following link: <https://www.iter.org/fr/proc/overview>.

When registering in Ariba (IPROC), suppliers are kindly requested to register at least one contact person. This contact person will be receiving the notification of publication of the Request for Proposal and will then be able to forward the tender documents to colleagues if deemed necessary.

- **Step 2 - Request for Proposals**
After the full registration of interested candidate companies, the Request for Proposals (RFP) will be published in “IPROC”. This stage allows interested candidate companies who have indicated their interest to the Procurement Officer in charge AND who have registered in IPROC to receive the notification that the RFP is published. They will then prepare and submit their proposals in accordance with the tender instructions detailed in the RFP.

Only companies registered in this tool will be invited to the tender and registered company can only submit a proposal in their name.

- **Step 3 – Tender Evaluation Process**
Tenderers proposals will be evaluated by an impartial evaluation committee of the IO. Tenderers must provide details demonstrating their technical compliance to perform the work in line with the technical scope and in accordance with the particular criteria listed in the RFP (given in section 5).
- **Step 4 – Contract Award**
The award will be done on the basis of best value for money or lowest price technically compliant offer as described in the published RFP.

5 Procurement Timetable

The tentative timetable is as follows:

Milestone	Date
Publication of the Prior Indicative Notice (PIN) on IO Webpage and communications with DAs	3 October 2024
Deadline for Submission of expression of interest form	14 October 2024
Request for Proposals (RFP) publishing on IPROC	21 October 2024
Tender Submission in IPROC	8 november 2024
Tender Evaluation & Contract Award	End of November 2024
Contract Signature	Mid-December 2024
Contract Commencement	Early January 2025

6 Contract Duration and Execution

The estimated contract duration shall be 12 months.

Exceptionally, for this contract, two experts are expected to work both part-time.

7 Experience

The tenderers shall demonstrate their knowledge, experience and capabilities in the implementation of providing expected supports in accordance with the IO technical requirements.

The working language of ITER is English, and a fluent professional level is required (spoken and written).

8 Candidature

Participation is open to all legal entities participating either individually or in a grouping/consortium. A legal entity is a company, or organization that has legal rights and obligations and is established within an ITER Member State.

Legal entities cannot participate individually or as a consortium partner in more than one application or tender of the same contract. 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.

In order for a consortium to be acceptable, the individual legal entities included therein shall have nominated a leader with authority to bind each member of the consortium, and this leader shall be authorised to incur liabilities and receive instructions for and on behalf of each member of the consortium.

It is expected that the designated consortium leader will explain the composition of the consortium members in its offer. Following this, the Candidate's composition must not be modified without notifying the ITER Organization of any changes. Evidence of any such authorisation shall be submitted to the IO in due course in the form of a power of attorney signed by legally authorised signatories of all the consortium members.

Any consortium member shall be registered in IPROC.

9 Sub-contracting Rules

No subcontracting is allowed for this package.

Technical Specifications (In-Cash Procurement)**CFE - Optics and Radio-Frequency Engineering Expertise
for 55.E6**

The purpose of this contract is to provide ITER diagnostics specialized Optical and Radio-Frequency engineering for the 55.E6 Visible Spectroscopy Reference System (VSRS) diagnostic.

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1 Preamble

This Technical Specification is to be read in combination with the General Management Specification for Service and Supply (GM3S) – [Ref 1] that constitutes a full part of the technical requirements.

In case of conflict, the content of the Technical Specification supersedes the content of Ref [1].

2 Purpose

The Contractor shall work on the specialized Optical and Radio-Frequency engineering for the 55.E6 Visible Spectroscopy Reference System (VSRS) diagnostic located in Equatorial Port 8. This diagnostic uses advanced Optical and Radio-Frequency components that have specific integration, manufacturing and qualification needs. To support the IO RO with both integration and the detailed definition of qualification, manufacturing and factory acceptance testing requirements for those Optical and Radio-Frequency components, dedicated and qualified expertise in the above mentioned areas is required.

The engineering activities in this contract shall aim at refining the Optical and Radio-Frequency component design, with an emphasis and qualification, testing and manufacturability in view of preparing for their manufacturing and future installation on the ITER tokamak. In coordination with the Technical Responsible Officer (TRO) of the VSRS diagnostic, the Contractor shall contribute to the formulation of design solutions, integrated performance analysis of the components in the integrated mechanical design, input to testing plans and reports, input to manufacturability assessments, input to technical specifications and requirements for qualification, manufacturing and factory acceptance testing; to ensure the timely delivery and installation of this system. Additionally, the work shall include the preparation and review of dedicated technical documentation.

The Contractor shall allocate engineering resources with experience in Optical and Radio-Frequency engineering (from design up to installation) of complex scientific instrumentations, preferably diagnostic systems, for large scientific and / or nuclear facilities. It is expected the expertise will be distribute over two profiles, with each contributing to a 50% fraction of the requested activities.

3 Acronyms & Definitions

3.1 Acronyms

The following acronyms are the main one relevant to this document.

Abbreviation	Description
CMM	Configuration Management Model
DIR	Design Integration Review
FDR	Final Design Review
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
MAM	Model Approval Meeting
PDR	Preliminary Design Review
PRO	Procurement Responsible Officer

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TRO	Technical Responsible Officer
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For a complete list of ITER abbreviations see: [ITER Abbreviations \(ITER_D_2MU6W5\)](#).

3.2 Definitions

Contractor: shall mean an economic operator who have signed the Contract in which this document is referenced.

4 Applicable Documents & Codes and standards

4.1 Applicable Documents

This is the responsibility of the Contractor to identify and request for any documents that would not have been transmitted by IO, including the below list of reference documents.

This Technical Specification takes precedence over the referenced documents. In case of conflicting information, this is the responsibility of the Contractor to seek clarification from IO.

Upon notification of any revision of the applicable document transmitted officially to the Contractor, the Contractor shall advise within 4 weeks of any impact on the execution of the contract. Without any response after this period, no impact will be considered.

Ref	Title	IDM Doc ID	Version
1	General Management Specification for Service and Supply (GM3S)	82MXQK	1.4

4.2 Applicable Codes and Standards

This is the responsibility of the Contractor to procure the relevant Codes and Standards applicable to the scope of work.

5 Scope of Work

This section defines the specific scope of work for the service, in addition to the contract execution requirement as defined in Ref [1].

5.1 Definition of Activities

5.1.1 *Optical and Radio-Frequency Engineering*

Specific activities in the scope of the TO include the followings:

Optical engineering

- To perform an integrated Optical system analysis based on the current, latest opto-mechanical design and the latest available input data from equatorial port manufacturing on manufacturing tolerances;
- To optimize the design of the 55.E6 mirrors, with specific emphasis on features to facilitate precision manufacturing (including polishing and coating) and installation (including alignment and metrology);

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- To provide expert input on necessary activities to qualify the Optical component manufacturing process;
- To provide expert input on specifications to be defined for Optical component manufacturing;
- To provide expert input on the verification (by factory acceptance testing or other means) of the Optical component manufacturing specifications;
- To provide expert input on specifications to be defined for Optical component installation, metrology and alignment;

Radio-Frequency engineering

- To perform an integrated Radio-Frequency (mirror cleaning) system analysis based on the current, latest electro-mechanical design and the latest available input data from the standard ITER electrical vacuum feedthrough as well as in-vessel and ex-vessel connectors and cabling;
- To optimize the design of the 55.E6 mirror cleaning Radio-Frequency component (e.g. the pre-matcher and its connection), with specific emphasis on features to facilitate manufacturing (including copper coating on ceramics) and installation (including connections of cables and grounding);
- To provide expert input on necessary activities to qualify the Radio-Frequency component manufacturing process;
- To provide expert input on specifications to be defined for Radio-Frequency component manufacturing;
- To provide expert input on the verification (by factory acceptance testing or other means) of the Radio-Frequency component manufacturing specifications;
- To provide expert input on specifications to be defined for Optical component installation and post-installation testing;

5.1.2 Requirements

These activities require:

- High-level expertise in Optical engineering (visible wavelength range);
- High-level expertise in Radio-Frequency engineering (10-100MHz, up to 1kW);
- Above mentioned expertise should cover:
 - Design
 - Manufacturing (including verification thereof)
 - Installation/integration (including verification thereof)

It is expected this expertise will be distributed over two profiles, with each contributing to a 50% fraction of the requested activities.

Additionally, sufficient training and knowledge is expected of:

- Interfaces, requirements and system configuration management;
- Maintenance and reliability in nuclear environment;
- Manufacturing, inspection and testing procedures;
- Manufacturing, inspection and testing procedures for the above mentioned Optical and Radio-Frequency components taken into account they will be subject to nuclear radiation, high heat loads, vacuum and magnetic fields;

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5.2 Service Duration

The duration shall be of 12 months from the starting date of the contract.

6 Location for Scope of Work Execution

The Contractor can perform the work at its own location.

7 IO Documents

Relevant input documents will be specified and provided during the execution of the work.

8 List of deliverables and due dates

The Supplier shall provide IO with the documents and data required in the application of this technical specification, the GM3S Ref [1] and any other requirement derived from the application of the contract.

A minimum, but not limited to, list of documents is available hereafter with associated due dates:

Deliverable #	Technical Design Family (TDF)	Generic Document Title (GTD)	Description	Expected Date (T0 + X)*
D#01	Review or Decision or Recommendations Report	55.E6 Optical and Radio-Frequency engineering – 1 st Quarter Progress Report	First quarter interim report, including: a) Record of the work performed; b) Status of engineering and analysis activities. c) Miscellaneous activities relevant to the scope of the TO.	3 months
D#02	Review or Decision or Recommendations Report	55.E6 Optical and Radio-Frequency engineering – 2 nd Quarter Progress Report	Second quarter interim report, including: a) Record of the work performed; b) Status of engineering and analysis activities. c) Miscellaneous activities relevant to the scope of the TO.	6 months
D#03	Review or Decision or Recommendations Report	55.E6 Optical and Radio-Frequency engineering – 3 rd Quarter Progress Report	Third quarter interim report, including: a) Record of the work performed; b) Status of engineering and analysis activities. c) Miscellaneous activities relevant to the scope of the TO.	9 months
D#04	Review or Decision or Recommendations Report	55.E6 Optical and Radio-Frequency engineering – 4 th Quarter Progress Report	Fourth quarter interim report, including: a) Record of the work performed; b) Status of engineering and analysis activities. c) Miscellaneous activities relevant to the scope of the TO.	12 months

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(*) T0 = Starting date of the contract; X in months.

The Contractor is requested to prepare their document schedule based on the above and using the template available in the GM3S Ref [1] appendix II ([click here to download](#)).

9 Quality Assurance requirements

The Quality class under this contract is QC-2 [Ref 1] GM3S section 8 applies in line with the defined Quality Class.

10 Safety requirements

No specific safety requirement related to PIC and/or PIA and/or PE/NPE components apply.

11 Specific General Management requirements

Requirement for [Ref 1] GM3S section 6 applies completed with the below specific requirements.

11.1 CAD design requirements

This contract does not require CAD activities.

Expression of Interest

To be returned by e-mail to: chloe.perret@iter.org copy amankumar.joshi@iter.org
before 14 October 2024, 17.00 CEST

ITER Organization / ITER Headquarters
Procurement & Contracts Division
Route de Vinon-sur-Verdon
CS 90 046
13067 St. Paul Lez Durance Cedex
France

TENDER No. **IO/24/CFE/10029839/CPT**

TENDER Title: **Optics and Radio-Frequency Engineering Expertise for 55.E6**

Officer in charge: **Chloé PERRET– EXT - Procurement & Contracts Division ITER**

☐ We acknowledge receipt of all tender documents for the above mentioned tender.
(In event of missing documents, contact the ITER Officer in charge)

☐ We intend to submit a tender

Contact Person for this solicitation Process:

Name: Tel:

Position: E-mail address:

Signatory Name:

Company Stamp

Title:

Signature:

Date: