

(INVITATION FOR EXPRESSION OF INTEREST)

NTPC Limited

(A Government of India Enterprise)

Invites

EXPRESSION OF INTEREST (EOI)

For

Providing Consultancy Services for Preparation of Tender Documents, Evaluation of bids and Contract Award Support for Large Capacity PWR-based Nuclear Power Projects.

DOCUMENTS OF EOI

This EOI document comprises the following sections:

- (i) Section I : EOI Information
- (ii) Section II : Introduction
- (iii) Section III : Information to the Applicants
- (iv) Section IV : Application Form and Annexures

Section – I

EOI Information

DETAILED NOTICE INVITING EXPRESSION OF INTEREST (EOI)

EOI No.: NTPC/NC/EOI/2026-27

Date: 06.07.2026

NTPC Limited is inviting Expressions of Interest (EOI) from reputed consultants to provide consultancy services for Preparation of Tender Documents, Evaluation and Contract Award Support for Large Capacity PWR-based Nuclear Power Projects in India.

1. NTPC Limited intends to explore the vendor base who are willing to provide consultancy services for preparation of Tender Documents covering Technical, Commercial & Legal aspects, Evaluation and Contract Award Support for Large Capacity (1000 MW & above) PWR-based Nuclear Power Projects in India. In this regard, NTPC invites Expression of Interest (EOI) from interested and experienced consulting firms (Hereinafter referred to as “**APPLICANT**”).

Note: Through this EOI, NTPC aims to explore and assess the global vendor base capable of providing consultancy support. The objective is to identify organizations with proven expertise in providing consultancy support in all pre-award activities (i.e., tender document preparation, evaluation strategy formulation, bid evaluation, etc.) leading to the award of the final contract to the shortlisted / selected vendors for deployment of Large Capacity PWR-based Nuclear Power Projects in India. Based on responses received from Applicants expressing interest and demonstrating the ability to meet all outlined requirements, NTPC intends to formulate a detailed scope and subsequently float a tender to select Consultant.

2. DOWNLOAD AND TIMELINES FOR SUBMISSION OF EOI

- a. Interested APPLICANTs may download the documents of EOI free of cost from www.ntpctender.com & <https://eprocurementpc.nic.in>
 - b. **Last date for submission of EOI: 30 Days from date of publication of EOI**
3. NTPC encourages submission of the Eoi in soft copy. Applicants are requested to refer to Section III of this Eoi for instructions regarding submission.
 4. NTPC reserves the right to reject or accept any or all applications, cancel/withdraw

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the EOI process without assigning any reason whatsoever and in such case, Applicant shall not have any claim arising out of such action. NTPC bears no responsibility or liability of any kind in reference to the EOI.

Section - II

Introduction

1. INTRODUCTION

- i. NTPC Limited, India's largest power generation company under the Ministry of Power, plays a pivotal role in energizing the nation. With an installed capacity ~90 GW (including JVs), NTPC powers every fourth light in India while advancing the country's clean energy ambitions.
- ii. With the growing need for energy and strengthening its core business, the corporation has diversified into the fields of Consultancy, Power Trading, Training of Power Professionals, Rural Electrification, Ash Utilization, Coal Mining, Renewable Energy & Hydro. NTPC has gained vast experience in Project Execution, Project Management, Mine planning and development, handling overseas contracts and projects.
- iii. NTPC, with a vision to generate power that is reliable, affordable, and accessible, and with aspirations to work towards Net Zero, has launched a strategic nuclear expansion initiative to support the national target of achieving 100 GW of nuclear capacity by 2047. This target, articulated in the Union Budget and aligned with the Viksit Bharat 2047 vision.
- iv. In line with this mission, NTPC is actively looking for potential sites across various locations for their suitability and further development of nuclear power plants.
- v. In this context, NTPC intends to develop nuclear power capacity based on PWR technology, comprising multiple units at identified sites. For this purpose, NTPC plans to select vendor(s) for deployment of Nuclear Power Plants (NPPs).
- vi. In this regard, NTPC now intends to avail consultancy services to support this process, including preparation of tender documents, evaluation of bids, and contract finalization/award support.

2. INTENT OF THE EXPRESSION OF INTEREST (EOI)

- i. The purpose of this EOI is to identify experienced consultants capable of development of tender strategies, preparation of tender documents, evaluation of bids, and contract award support for nuclear power projects.
- ii. The response(s) received against this Expression of Interest (Eoi) shall be analyzed and utilized by NTPC to develop a comprehensive understanding of the available consultant market, including the capabilities, experience, and domain expertise of prospective agencies.
- iii. Based on this assessment, NTPC will identify a suitable vendor base of consultants. The inputs gathered through the Eoi process will further be used to refine and

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finalize the scope of work, qualification criteria, evaluation methodology, and other key requirements for the subsequent tender document.

- iv. A Tender process will be undertaken separately for the selection and engagement of the consultant(s).
- v. The APPLICANTS may express their interest in responding to this EOI, along with inputs as indicated in relevant Annexures/formats.

Section – III

Information to the Applicants

1. Who can apply:

- a. The APPLICANT should be a consulting firm with demonstrated experience in nuclear power projects.
- b. The APPLICANT shall possess in-house expertise in any two of three of the following domains pertaining to Nuclear Power Plant:
 - i. Preparation of tender documents covering Technical, Commercial & Legal aspects, Cost Estimate, finalization of bid evaluation strategy, Contract structuring etc
 - ii. Technology evaluation for licensability (Both Codal & Regulatory requirements)
 - iii. Technical and commercial evaluation of bids

For the third domain not covered through in-house expertise, the APPLICANT may engage Subject Matter Experts (SMEs) or enter into a formal collaboration / tie-up with other consultants possessing the requisite expertise.

- c. The APPLICANT should have strong understanding of international nuclear procurement practices, Legal and Nuclear regulatory frameworks.
- d. Should have financial capability and technical competence to facilitate comprehensive consultancy support for a nuclear power project.
- e. Any APPLICANT, from a country which shares a land border with India, will be eligible to participate only when and if the vendor is registered with the Competent Authority. The Competent Authority for registration is the Registration Committee under Department for Promotion of Industry and Internal Trade (DPIIT).
- f. The APPLICANT should furnish all relevant information regarding above experience as per Section IV.

2. Expected Scope of Cooperation:

The APPLICANT shall assist NTPC throughout the entire process, encompassing the formulation of tender strategies and preparation of bidding documents based on technical, commercial & legal aspects, bid evaluations, and provision of advisory support during bidder interactions and contract negotiations. The APPLICANT shall also facilitate finalization and award of contracts.

The broad framework for cooperation is as follows:

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- a. **Cost Estimate Preparation:** The Applicant shall develop a comprehensive cost estimate for the project to enable NTPC to evaluate bid reasonableness and establish internal budgetary provisions. This will include methodology formulation, benchmarking with international nuclear power projects, site-specific adjustments, contingency and escalation frameworks, and preparation of a cost breakdown structure. A detailed estimation report including sensitivity analysis shall be provided for NTPC review and approval.
- b. **Bid Documents Preparation:** The Applicant shall prepare bid documents, including Technical Specifications, packaging concept, methodology for Technical, Commercial & Legal evaluation, contract award strategy, procurement planning criteria, local industry participation strategy, training requirement & human capacity building aspects.
- c. **Pre-Bid Support:** The Applicant shall establish and operate a structured communication framework for the pre-bid stage, including managing all bidder queries in coordination with NTPC and ensuring timely responses; preparing and issuing addenda, corrigenda, and clarifications in accordance with approved procedures; and maintaining complete, accurate, and transparent records of all communications with bidders to ensure fairness, traceability, and compliance with applicable regulatory requirements.
- d. **Bid Evaluation & recommendation for Contract Award:** The Applicant shall carry out actual bid evaluation as per the framework developed earlier, covering technical, commercial & legal aspects. Based on the evaluation & award strategy, the vendor should provide recommendations for award of contract along with assistance in negotiation.
- e. A detailed Scope of Work is attached as Annexure 5 to this EoI.

3. The applicants should note that:

- a. Language of the responses to EOI or any query/clarifications/correspondences shall be in English only.
- b. For expression of interest, the Application Form and Annexures given in Section-IV shall be duly filled out and sent to NTPC by the Applicant in soft copy.
- c. Applicants should go through Section-I and Section-II thoroughly before filling and submitting the application form and annexures in Section-IV.
- d. Applicants should mention the name and contact details of two persons, with complete address, phone number and email address.
- e. NTPC may, at its sole discretion, ask for additional information/documents and/or seek clarifications from the Applicant(s) after the Deadline for submission of response, inter alia, for the purpose of removal of inconsistencies or infirmities in their responses.

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4. Corrigendum

At any time before the last date of submission of EOIs, NTPC may, for any reason, whether at its own initiative or in response to a clarification requested by an Applicant, modify the EOI document. The amendment will be posted on the website and will be binding on the Applicants and the Applicant will give due consideration to the same, while they submit their EOIs, and would invariably enclose documents/ information, as required, on account of the amendment, as a part of the EOI. NTPC may, at its discretion, extend the deadline for the submission of EOIs.

5. Preparation of the response to EOI

The application of EOI should consist of the following with a brief on methodology proposed by Applicant keeping overall objective of this EOI in view:

(a) Annexure 1, 2, 3 & 4 of Section-IV

6. Submission of the response to EOI, enquiries and clarifications

The responses to the EOI, enquiries and clarifications are to be submitted in soft copy to e-mail ID: eswarkalyan@ntpc.co.in in the following format:

Ref. Eoi No: NTPC/NC/EOI/2026-27

Dated: 06.07.2026

Submitted to:

To: Mr. Eswar Kalyan K, AGM (Nuclear Cell)

Email: eswarkalyan@ntpc.co.in

Address: Nuclear Cell, NTPC Limited

Western Region – I HQ, 2nd Floor, Samruddhi Venture Park, MIDC Marol, Andheri (East), Mumbai - 400093

Submitted by:

Name, address & contact no. of the Applicant

All the pages of the response should be duly stamped and signed by the authorized signatory in whose favor the authorization is issued.

The responses to the EOI should be submitted within the Deadline as mentioned in this document.

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Any clarifications on the EOI may be sought via email at the above-mentioned email ID.

7. Opening of responses to the EOI

The responses to the EOI shall be opened at 15:00 HRS (IST) on the last date for submission of EOI as mentioned in this document. In the event of any of the above dates falling on a day which is not a working day, or which is a public holiday, the responses shall be opened on the next working day at the same venue and time.

8. Costs and expenses towards response to EOI

The Applicants shall be responsible for all costs associated with the preparation of their responses, participation in discussions, finalization and submission of documents related to this EOI. NTPC shall not be responsible for any such costs, regardless of the conduct or outcome of the shortlisting/selection process.

9. Confidentiality

The Applicants undertake to hold in confidence this EOI and any document related or pursuant to this EOI and not to disclose the terms and conditions of the transaction contemplated hereby to third parties.

10. Disclaimer

- (a) NTPC reserves the right to make any changes on the conditions of EOI or completely cancel this EOI at any point without assigning any reason thereof.
- (b) In submitting an expressed EOI in response to the EOI, the Applicants certify that they understand, accept and agree to the disclaimers on this page. Nothing contained in any other provision of the EOI, nor any statements made orally or in writing by any person or party, shall have the effect of negating or superseding any of the disclaimers set forth herewith.

Section-IV

Application Form & Annexures

Annexure-1

FORMAT FOR COVERING LETTER CUM UNDERTAKING

(The cover letter should be on the Letter Head of the Applicant)

Date: _____

Place: _____

To,
.....

Sub.: (INVITATION FOR EXPRESSION OF INTEREST)

Ref.: Eol No. NTPC/NC/EOI/2026-27, dated 06.07.2026 (the “EOI”)

Dear Sir,

We, the undersigned [insert name of the “Applicant”] having read, examined and understood in detail the **(INVITATION FOR EXPRESSION OF INTEREST)**. We confirm that neither we nor any of our Parent Company/ Affiliate/ Ultimate Parent Company has submitted responses other than this response directly or indirectly in response to the aforesaid EOI.

1. We give our unconditional acceptance to the EOI, issued by NTPC.
2. We confirm that we are not from a country sharing land border with India.

(or)

We confirm that we are from a country sharing land border with India and are duly registered with the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT) of GoI.

3. We confirm that there are no litigations or disputes against us, which materially affect our ability to participate or function under the obligations with regard to EOI.
4. Details of the contact person are furnished as below:

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Name:

Designation:

Address:

Contact numbers:

email id:

5. We are enclosing herewith the entire response containing duly signed formats in electronic format sent via email to: eswarkalyan@ntpc.co.in as per the EOI for consideration.
6. The information submitted in our response is complete, strictly as per the requirements stipulated in the EOI, and is correct to the best of our knowledge and understanding.
7. We do hereby undertake and confirm that we fully understand and acknowledge that no claim by us, as the applicant, shall be admissible against NTPC on account of this Expression of Interest (EOI).
8. Furthermore, we acknowledge and accept that NTPC reserves the right to alter, modify, or cancel the EOI process entirely, at its sole discretion, without assigning any reason thereof.

We remain,

Yours sincerely

(Name, Designation, and Signature of Authorized Person in whose name Power of Attorney is issued)

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Annexure-2

INFORMATION TO BE SUBMITTED BY APPLICANT

(Note: Documents in support of meeting the respective requirements shall be submitted by the Applicant.)

A. General Information about Company:

Name of Consultant	
Details of registration (in full)	
Brief description of the Consultant including details of its business groups/subsidiaries/ affiliates	
Legal Status of Company / Type of Organization (Public/Private/Government)	
Equity Ownership Pattern	
Parent/Leader company (if any) and its involvement in the project	
Major subsidiaries and locations of other offices	
Geographical Coverage	
Certifications & Accreditations	
Website	
Full address including Telephone nos. / Fax nos.: a. Registered Office: b. Head Office: c. Address for communication: d. Contact Details: e. Office Address in India, if any:	
Has your company ever been blacklisted or terminated for default by any Indian government entity [If yes, provide details in an attachment to this form]	

B. Financial Information about Company:

Year	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Annual Turnover (INR)					
Net Worth (INR)					
Net Profit / Loss (% of Annual Turnover)					
Paid up Share Capital (INR)					

Please attach documents in support of above credentials.

(Sign & Company Seal)
Authorized signatory

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Annexure-3

INFORMATION TO BE SUBMITTED BY APPLICANT

Essential Information:

A. Past Experience

1. Brief description of Consultant's principal activities with emphasis on scope of work (Use separate sheets as required)
2. **Details of consultancy assignments executed or currently under execution for Nuclear Power Projects shall be submitted in the prescribed format below, including key project particulars such as Project Name, brief scope, timeline, completion date & Value of works executed.**

Reference Work	Name & details of the Project & Brief on work carried out	Start & End Date	Value
Reference Work 1			
Reference Work 2			
Reference Work 3			
...
...

3. **The Applicant shall also submit details of its consultancy experience in the prescribed format provided below, clearly mapping their experience to the specified categories by indicating the relevant entries with a tick mark:**

Specified Category	Reference Work 1	Reference Work 2	Reference Work 3
Development of Contract packaging					
Comprehensive cost estimate preparation					
Formulation of strategy for evaluation of Bids					
Formulation of Contract Award Strategy					
Preparation of tender documents including					

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Technical Specifications					
Preparing methodology for local industry participation					
Technology evaluation for licensability (Both Codal & Regulatory requirements)					
Technical and commercial evaluation of bids					
Support in negotiation with Bidder					
Recommendations for award of contract					

Please attach documents in support of above credentials.

4. Details of collaborations/joint ventures in the nuclear sector.

Credentials – Relevant catalogues, Experience /Reference List, Copies of Customer Certificates, collaborations/tie-ups, supporting document for consultancy works including location and country name, quality accreditations, etc.

Additional details, as deemed fit, may be provided in separate sheets.

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Annexure-4

INFORMATION TO BE SUBMITTED BY APPLICANT

Essential Information:

A. Proposed plan for Cooperation:

(Please submit a write-up on the following aspects)

- Proposed role and scope of participation in the NTPC initiative.
- Key differentiators and value additions the applicant's organization brings to the initiative.
- Resources and infrastructure available to support the scope of work.
- Any other relevant details supporting the proposal.

Checklist

Please indicate the areas where your organization is interested in collaborating (Check those applicable) and provide details:

A. Cost Estimate Preparation:

1. Develop a comprehensive cost estimate for the global tender
2. Formulate estimation methodology
3. Benchmark costs with international nuclear power projects
4. Incorporate site-specific adjustments
5. Define contingency and escalation frameworks
6. Prepare cost breakdown structure
7. Conduct sensitivity analysis
8. Submit detailed estimation report for NTPC review and approval

B. Bid Documents Preparation:

1. Prepare bid documents including Technical Specifications
2. Define minimum information requirements for assessing technology licensability in India
3. Ensure compliance with applicable regulatory and legal requirements
4. Establish bidder qualification criteria
5. Recommend Evaluation strategies
6. Develop packaging concept
7. Prepare procurement planning framework
8. Suggest approach for local industry participation
9. Propose training and capacity-building measures
10. Recommend contract models and contracting approaches

C. Pre-Bid Support:

1. Establish structured communication framework for pre-bid stage
2. Manage bidder queries in coordination with NTPC
3. Ensure timely and consistent responses to bidders

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4. Prepare and issue addenda, corrigenda, and clarifications
5. Follow approved procedures for all communications
6. Maintain complete and accurate records of bidder interactions
7. Ensure transparency & traceability

D. Bid Evaluation & recommendation for Contract Award:

1. Bid evaluation as per developed methodology (covering technical, commercial, and legal aspects)
2. Carry out detailed bid assessment
3. Assist in finalizing contract structure
4. Provide recommendation for award of contract
5. Support NTPC during negotiations

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Annexure-5

SCOPE OF WORK

1. Cost Estimate Preparation

The Consultant shall develop a comprehensive cost estimate for the project to enable NTPC to evaluate bid reasonableness and establish internal budgetary provisions. This will include methodology formulation, benchmarking with international PWR projects, site-specific adjustments, contingency and escalation frameworks, and preparation of a cost breakdown structure. A detailed estimation report, sensitivity analysis, and site-wise breakdown shall be provided for NTPC review and approval.

2. Bid Document Preparation

The consultant has to develop **standardized document templates** for the bidding (invitation letters, bidding instructions, evaluation criteria, technical specs, etc.) aligned with national and international norms. The consultant must draft key bid documents, including:

A. Invitation letter

The Consultant shall prepare a draft Invitation Letter to prospective bidders, which shall include, but not be limited to brief overview of the PWR project covering key features, project location proposed implementation schedule and the general bidding and contracting approach. It should also outline the brief scope of work of the bidder. The letter shall also specify qualifying requirements for bidders, including technical experience, compliance with nuclear standards and financial criteria.

B. Instructions to the bidder

The Consultant will prepare a comprehensive administrative-instructions framework which should include, but not be limited to:

- i. Bidder details and document indexing (with amendment/errata procedures)
- ii. Bid preparation rules for Techno-Commercial (Envelope I) and Price (Envelope II) submissions (forms, security, guarantees, declarations, QA, pricing data)
- iii. Submission protocols (deadlines, delivery, sealing, file naming, modifications)
- iv. Bid opening and evaluation steps (compliance checks, clarifications, techno-commercial and price assessments, Make in India preference)
- v. Contract award procedures (criteria, notification, signing, performance security, annulment, ineligibility, and anti-corruption).

C. Bidder Qualification Requirements

The Consultant shall develop clear, enforceable qualification requirements to ensure participation of only technically competent, financially sound, and experienced vendors. These requirements shall focus on, but not be limited to, key areas such as

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technical expertise in PWR technology, compliance with national and international nuclear safety regulations, proven experience in large-scale EPC projects, and financial robustness. The bidder's localisation strategy, training programs, and adherence to governance and confidentiality protocols will also be evaluated. The Consultant shall draft tender documentation in a manner that requires bidders to submit complete, verifiable and detailed responses aligned with each qualification criterion.

D. General Information on Bid and Bidder

Consultant shall develop a structured draft proposal outlining the required content and format of bidder submissions. The proposed structure of bidder submissions shall be tailored to nuclear industry norms and may include, but not be limited to: Executive Summary of the Bid, Technical Description of the Nuclear Power Plant, Detailed Scope of Supply and Services, Project Implementation Plan, Legal and Commercial Documentation, Financial Statements and Credit worthiness, Nuclear Safety Records, Relevant Experience in Nuclear Projects, Reference Plants and Proven Technologies, List of Proposed Subcontractors, Schedule of Deviations and Exceptions etc.

E. Technical Specifications

The Consultant shall prepare comprehensive Technical Specifications, ensuring compliance with national and international nuclear safety standards, AERB and IAEA requirements, and NTPC's objectives for the planned **deployment of PWR-based program**. The specifications shall define minimum design, performance, quality and safety requirements while allowing flexibility for different vendor technologies.

Key elements shall include:

- i. **Intent of Specifications** - To define the minimum technical and performance requirements necessary to ensure a safe, reliable and licensable PWR design while allowing bidders to propose standard designs.
- ii. **Provenness** - Specifications shall emphasise the use of proven, reference reactor designs with demonstrated operational experience and established licensing records, ensuring high safety and performance assurance.
- iii. **Project Information** - Summary of site and grid data, climatic and seismic conditions, water source and cooling arrangements, land availability and infrastructure considerations relevant to each project site.
- iv. **Operating Capability of the Plant** – Definition of Unit Power ratings, target capacity factors, availability and load-following capability, operational flexibility and maintenance/refuelling outage duration benchmarks aligned with global PWR standards.
- v. **Technology Licensability** – Define minimum information required for assessing technology licensability in India.

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- vi. **Unit Operating Philosophy** – General operating modes, load regulation approach, reactor control philosophy, redundancy and automation levels and expected human–machine interface framework.
- vii. **Layout Requirements** – Basic requirements for plant layout including separation of safety and non-safety systems, zoning for radiation protection, access control, seismic categorization and provisions for modular construction & twin-unit configuration where applicable.
- viii. **Excavation, Geotechnical Investigations & Foundation Design** –
 - a. Specifications shall include requirements for confirmatory geotechnical investigations, including borehole drilling, sampling, laboratory testing and in-situ testing to verify subsurface conditions and support design inputs.
 - b. Requirement of Excavation works to be designed and executed in accordance with site-specific geotechnical data, ensuring slope stability, dewatering and ground improvement where required.
 - c. Foundation design shall comply with AERB Safety Codes and Guides applicable to nuclear facilities, ensuring adequate consideration of seismic, settlement and bearing capacity criteria for safety-related structures, systems and components.
 - d. Requirements for preparation of Geotechnical Investigation Reports (GIR), Design Basis Reports (DBR) and Foundation Design Reports (FDR) shall be defined as part of the tender documentation.
- ix. **Scope of Supply & Services** - Consultant shall define the structure and content of the bidders' Scope of Supply and Services. Standardised templates shall be developed to ensure consistency across submissions. The Consultant shall present the proposed framework to NTPC, clarify bidder-Owner interfaces, evaluate options for fuel cycle supply, spare parts, auxiliary services and technical alternatives.
- x. **Design Basis & Safety Philosophy** – Overall design principles, safety classification, regulatory framework, reliability and maintainability criteria.
- xi. **Reactor & Primary Systems** – Core design, reactor coolant system, containment, control and protection systems and major SSCs.
- xii. **Secondary & Balance of Plant Systems** – Steam cycle, turbine-generator, cooling systems (including inland options), Condenser cooling system, Make up water system, DM Plant, and auxiliary systems.
- xiii. **Safety & Safeguard Systems** – ECCS, containment isolation, decay heat removal, fire protection, radiation monitoring and emergency preparedness.
- xiv. **Civil & Structural Works** – Layout for Tendering, seismic and structural design, radiation shielding, and containment integrity.
- xv. **Equipment Sizing Criteria** – Design criteria for sizing of key process systems and components (Reactor coolant system, Steam generators,

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pumps, heat exchangers, Steam Turbine, Generator, Boiler Feed Pumps, Condensate Extraction Pumps and cooling systems) based on design margins, redundancy and environmental parameters.

- xvi. **Electrical & I&C Systems** – Power distribution, grid interface, control and protection architecture, cybersecurity, and redundancy.
- xvii. **Fuel Cycle & Waste Management** – Fuel supply and handling, spent fuel and radioactive waste management, and decommissioning approach.
- xviii. **Quality Assurance & Standards** – Compliance with national & international standards, QA/QC and inspection requirements.
- xix. **Performance Guarantees & Testing** – Efficiency, availability, and performance test requirements covering design, factory, and site stages.
- xx. **Documentation & Configuration Management** – Design documentation, Tender Drawings, data sheets, and document control procedures.

Draft specifications shall be presented to NTPC with supporting rationale and cross-references to applicable codes and standards. After review and incorporation of NTPC's feedback, the Consultant shall finalize the Technical Specifications for inclusion in the global tender documents.

F. Bid Evaluation Criteria & Award Strategy

The Consultant shall develop a **comprehensive bid evaluation methodology** encompassing both **technical, legal and commercial aspects**, and present it to NTPC through detailed presentations, supporting documents, and discussions for review and approval prior to its inclusion in the tender documents.

The evaluation framework shall be designed to ensure objective, transparent, and balanced assessment of all bidder submissions, covering—Regulatory and Contractual Compliance, Scope and Capabilities, Technical Aspects of the Plant, Project Execution Approach, Fuel Cycle and Supply Chain, Localisation roadmap and Financial and Economic Criteria.

In defining the technical evaluation requirements, the Consultant shall identify and detail all major Structures, Systems, and Components (SSCs)—including the Nuclear Island, Conventional Island, Balance of Plant, Electrical Systems, Instrumentation & Control Systems, and Civil Structures. The evaluation shall comprehensively address following but not limited to key design parameters (such as unit size, reactor technology, grid integration, and fuel cycle considerations etc.); safety and licensing benchmarks (applicable codes, standards, and approval milestones); performance and reliability targets; operability and maintainability metrics; waste management and decommissioning strategies; physical protection and security measures; emergency preparedness infrastructure; and safeguards provisions for proliferation resistance and regulatory compliance.

Financial Evaluation to cover bid pricing, financing terms, lifecycle costs, payment terms etc. Based on these parameters, the Consultant shall formulate a structured, point-scored evaluation matrix ensuring consistency and alignment with NTPC's technical, safety and commercial objectives.

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Further, the Consultant shall also develop a comprehensive Award Strategy, clearly defining the methodology and principles for bid comparison, ranking, and selection of the successful bidder / bidders. The proposed strategy shall be discussed with and approved by NTPC prior to its incorporation in the final Bid Documents.

G. Project Implementation

Consultant shall study and identify optimal project implementation strategies specific to nuclear power projects, considering global best practices, risk profiles, and Indian regulatory frameworks to identify the most effective approach. Consultant should draft tender, mandating bidders to provide the following but not limited to complete implementation plan, encompassing consortium structure and key personnel, milestone-driven schedules, detailed construction and commissioning methodologies, applicable national or international nuclear regulatory-compliant document and configuration management, unified management system for safety, quality and environmental compliance, risk management program etc.

To further support efficient project execution, the Consultant shall also develop a reward mechanism aimed at incentivizing early or ahead-of-schedule completion. This mechanism shall include clearly defined performance benchmarks, objective monitoring criteria and transparent provisions for benefit sharing.

Consultant will also evaluate and present different award strategies to determine the optimal contracting approach.

H. National Participation/ Indigénisation/ Localisation

The Consultant shall ensure that the tender specifies minimum localization requirements for each phase of the project, encompassing local industry participation and indigenization of nuclear-grade components. The tender shall further require bidders to submit a detailed, phase-wise localization roadmap demonstrating how these minimum requirements will be achieved and progressively enhanced over successive phases.

At a minimum, all consumables and spare parts shall be sourced and manufactured locally, ensuring the development of a sustainable domestic supply chain to support long-term operation and maintenance of the plants.

I. Training

The Consultant shall undertake a thorough analysis of international best practices, established training models within the nuclear industry, and the capabilities of potential vendors to design an optimal framework for NTPC's operation and maintenance training programme. This study shall benchmark training approaches used by other utilities implementing PWR technologies, including but not limited to simulator-based instruction, modular learning structures, and mechanisms for sustained knowledge transfer. Based on this assessment, the Consultant shall develop a structured training framework including staffing projections, regulatory obligations, and project milestones. The framework shall outline recommended training phases, qualification levels, simulator utilization, localisation opportunities,

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and standards for certification and post-training evaluation. The Consultant shall present the proposed framework to NTPC for review and incorporate the approved structure into the Training Programme Requirements section of the global tender documentation.

J. Commercial Requirements

The Consultant shall develop a commercial and financial framework and shall include, but not be limited to: a structured pricing format covering fixed, firm, and provisional prices with clear adjustment mechanisms; milestone-linked payment schedules; defined warranty terms for performance, quality, and delivery; mandatory insurance requirements including nuclear liability and material damage; bidder financing proposal formats with details on sources, terms, and commitment letters; and financial provisions for decommissioning, spent fuel and radioactive waste management.

K. Special Conditions of Contract (SCC)

Where applicable, the Consultant shall draft Special Conditions of Contract to address project-specific requirements. This may include but not limited to provisions related to site conditions, technical deviations, local regulatory variations, performance guarantees and payment milestones.

These templates to be presented to NTPC as PowerPoint presentations supported by detailed documentation for review and approval prior to the detailed drafting of content.

The Consultant shall, but not be limited to, utilise the above-mentioned aspects to prepare and compile the complete set of global tender documents in alignment with NTPC's Standard Bid Documents (same will be provided by NTPC) which includes Invitation to Bidders, Instructions to Bidders, Bid Data Sheets, General and Special Conditions of Contract (GCC & SCC), Technical Specifications and Drawings (TS), Forms and Procedures (FP) and Price Bid documents.

3. Pre-Bid Support

The Consultant shall establish and operate a structured communication framework for the pre-bid stage, which shall include but not limited to:

- i. Managing all bidder queries in coordination with NTPC and ensuring timely responses.
- ii. Preparing and issuing addenda, corrigenda, and clarifications in accordance with approved procedures.
- iii. Maintaining complete, accurate, and transparent records of all communications with bidders to ensure fairness, traceability, and compliance with applicable regulatory requirements.

4. Bid Evaluation and Contract Award Support

(INVITATION FOR EXPRESSION OF INTEREST)

A. Bid Evaluation

The Consultant shall implement the earlier detailed bid evaluation methodology, consistent with tender criteria, applicable national or international nuclear regulatory safety standards, and NTPC requirements. This shall include but not limited to:

- i. Conducting compliance checks against tender conditions, applicable nuclear regulations and statutory requirements.
- ii. Scoring technical proposals on parameters such as design maturity, safety features, implementation schedules, quality assurance plans and risk management approaches.
- iii. Carrying out economic analysis covering bid pricing, financing terms and lifecycle costs.
- iv. Evaluating bidder commitments on localization, training programs and operational support.
- v. Leading the evaluation process by forming evaluation teams, ensuring uniform application of criteria and documenting all findings.
- vi. Managing bid clarifications and coordinating with NTPC on requests for additional bidder information.

B. Contract Award Support

The Consultant shall provide comprehensive support to NTPC during the contract award stage, including but not limited to:

- i. **Negotiation Dossiers:** Preparing detailed negotiation briefs for shortlisted bidders, covering technical issues, contractual terms, risk allocation and commercial considerations.
- ii. **Strategic Advice:** Advising NTPC on critical negotiation points to safeguard interests, including performance guarantees, escalation clauses, indemnities and dispute resolution mechanisms.
- iii. **Contract Finalization:** Updating draft contracts to incorporate agreed terms, reviewing revised documents for consistency and ensuring alignment with tender conditions and regulatory requirements.
- iv. **Award Recommendation:** Preparing a clear, well-documented report recommending the selected bidder, based on evaluation scores, negotiation outcomes and overall value to NTPC.

C. Governance and Compliance

Throughout the evaluation and award process, the Consultant shall:

- i. Ensure all activities are conducted in full compliance with nuclear regulatory requirements and procurement best practices.

(INVITATION FOR EXPRESSION OF INTEREST)

- ii. Maintain transparent and auditable records of all evaluation and negotiation proceedings.
- iii. Implement measures to prevent conflicts of interest and ensure fairness in decision-making.

5. Deliverables and Review Mechanism

The Consultant shall provide structured deliverables for each task including reports, presentations, and draft documents for NTPC's review. A deliverable register with timelines and approval milestones shall be maintained. Regular progress reviews shall be conducted with NTPC to monitor task completion and incorporate feedback.