

(GLOBAL INVITATION OF EXPRESSION OF INTEREST)

# **NTPC Limited**

(A Government of India Enterprise)



Invites

Expression of Interest

(EOI)

For Technical Proposals on Reliable, Sustainable & Climate Resilient  
Water Withdrawal Solutions from river Ganga for NTPC's upcoming  
project

## DOCUMENTS OF EOI

This EOI document comprises of the following sections:

- (i) Section I : EOI Information
- (ii) Section II : Introduction
- (iii) Section III : Instructions to the Applicants
- (iv) Section IV : Consideration of Response
- (v) Section V : Application Form and Annexures

# **Section – I**

## **EOI Information**

(GLOBAL INVITATION OF EXPRESSION OF INTEREST)

**DETAILED NOTICE INVITING EXPRESSION OF INTEREST (EOI)**

**EOI No. NTPC/PE/SE/EOI-01/2025-26**

**Date: 01.12.2025**

NTPC Limited invites Expressions of Interest for technology suggestions/proposals from international and domestic agencies for the design and implementation of advanced water withdrawal solutions from river Ganga. The proposed solutions should focus on reliability, operational efficiency, sustainability, environmental compliance, and resilience to climate-related risks. The objective is to explore reliable, adaptable, and sustainable models for an upcoming NTPC project, thereby ensuring uninterrupted operation while maintaining ecological balance and aligning national priorities on sustainable resource management. The intent of this EOI is to identify competent agencies that can offer innovative, technically sound, and cost-effective water withdrawal solutions, contributing to NTPC's mission of sustainable and efficient power generation.

**DOWNLOAD AND TIMELINES FOR SUBMISSION OF EOI**

- a. Interested APPLICANT(s) may download the documents of EOI free of cost from <https://ntpctender.ntpc.co.in>
- b. **Last date for submission of EOI** : **15.01.2026**
- c. **Last date for queries/ seeking clarifications** : **25.12.2025**
- d. **Date of opening of Eoi response** : **16.01.2026**
- e. **Response Validity** : **6 months from the last date for EOI Submission**

**1.0** For consideration of EOI, APPLICANTS are required to e-mail signed and scanned copy of EOI duly filled and completed in all respect, through e-mail mentioned hereunder. Email: [puneetsharma@ntpc.co.in](mailto:puneetsharma@ntpc.co.in)

**2.0** NTPC shall not be liable for any postal/ Mail delivery issue delays whatsoever in receipt of EOI documents and EOI received after the stipulated date and time shall not be entertained. EOIs submitted without supporting document will summarily be rejected.

**3.0** NTPC reserves the right to reject or accept any or all applications, cancel/withdraw 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**

## **(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

### **INTRODUCTION**

#### **1.0 ABOUT NTPC**

NTPC Limited is India's largest energy conglomerate and the dominant power major with a presence in the entire value chain of the power generation business. As a Maharatna PSU under the Ministry of Power and India's largest power generator, NTPC plays a pivotal role in meeting the nation's energy requirements through a diversified portfolio spanning thermal, hydro, and renewable power.

The company reported strong financial performance in FY 2024-25 with a consolidated income of about ₹1,90,862 crore, and a consolidated profit after tax of approximately ₹23,953 crore. NTPC's group installed capacity reached nearly 84,849 MW, including its subsidiaries and joint ventures. In Q2 FY 2025-26, NTPC maintained its growth trajectory, posting a consolidated income of ₹45,262 crore and a profit after tax of ₹5,225 crore. These figures underscore NTPC's financial resilience, operational strength, and continued commitment to ensuring reliable and sustainable power for India.

#### **2.0 INTENT OF THE EXPRESSION OF INTEREST (EOI)**

**2.1** The primary objective of this Expression of Interest (EOI) is to invite global interest, innovative concepts, and technically robust proposals for the development of reliable and efficient water withdrawal systems from river Ganga for NTPC's upcoming project. Through this initiative, NTPC seeks to identify advanced, non-traditional solutions that can provide higher adaptability, operational reliability, and long-term sustainability. Proponents are encouraged to present globally benchmarked technologies, including hybrid, modular, retractable, or amphibious intake systems, which can effectively address challenges such as fluctuating river stages, restricted access, or high silt loads.

**2.2** The key intent of this EOI is to ensure the development of solutions that can perform efficiently under varying flow conditions such as monsoon floods, lean season low flows, sudden river stage variations, and heavy siltation. Systems that incorporate features like redundancy, automation, intelligent monitoring, and adaptive design are particularly sought, as they can guarantee uninterrupted operation across a wide range of hydrological scenarios and enhance resilience to climate-related uncertainties.

## **(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

**2.3** In addition, NTPC places emphasis on identifying water intake solutions that are energy-efficient, low-maintenance, and environmentally sustainable. Proposals should demonstrate low energy consumption through advanced pumping techniques, automation, or smart control systems, along with designs that lower lifecycle operation and maintenance costs. Further, environmental sustainability will be a critical evaluation parameter, with solutions expected to minimize ecological disturbance to riverine ecosystems, reduce risks such as fish entrainment and biodiversity loss, and comply fully with applicable environmental and regulatory norms.

**2.4** The water withdrawn from the river shall be pumped and conveyed to the MUW intake point (refer annexure 6) or desilting basin constructed by NTPC on the riverbank, located at approximately 300 meters. Proposals must duly account for seasonal variations in river levels and stage fluctuations (refer annexure 6), ensuring that the proposed solutions remain fully operational, reliable, and capable of providing uninterrupted water availability to NTPC projects under all seasonal conditions.

**2.5** The responses received through this Expression of Interest will be examined by NTPC with the objective of identifying the most suitable concepts and solution providers for developing a sustainable and reliable water withdrawal system. To facilitate an objective comparison of all responses, the layout of the project along with the key parameters has been provided in Annexure 6. All applicants are required to propose their technological solutions in alignment with these parameters. Submissions will be evaluated on a techno-economic basis, considering technical robustness, reliability under varying operational conditions, environmental impact and regulatory compliance, maintainability as well as indicative capital and operating costs. Key parameters of the proposed technology/facility have been provided in the respective annexures. However, applicants are encouraged to supplement these with detailed information and any additional technical, operational, or performance-related parameters they consider relevant, to enable a comprehensive and objective evaluation.

**2.6** Based on the outcome of this evaluation, NTPC will prepare a shortlist of competent agencies and technology partners for further engagement. The shortlisted entities may subsequently be invited for detailed consultations, feasibility assessments, and participation in tendering processes. NTPC also reserves the right to adopt a hybrid of the best solutions proposed by different applicants if such an approach is found most beneficial. The final objective is to implement a cost-effective, environmentally responsible, and efficient intake system that can reliably meet the long-term water needs of the NTPC project.

**2.7** Participation in this EOI offers several benefits, including high visibility by providing an opportunity to present solutions to India's largest power generator, future engagement through consideration for feasibility studies, detailed design, or EPC tenders at NTPC projects. It also provides market access, enabling potential collaboration across NTPC's project portfolio and India's expanding power sector, as well as a platform to showcase innovative and sustainable technologies that align with NTPC's ESG and sustainability commitments. Credible proposals may be shortlisted for feasibility studies, detailed design, or EPC procurement, positioning applicants as preferred partners for future engagements and enabling long-term collaboration, technology transfer, and market access in India's power sector.

**2.8** Applicants are encouraged to provide conceptual, high-level cost estimates for their proposed solutions, including indicative capital expenditure (CapEx) for system implementation, approximate operating expenditure (OpEx) on an annual basis, and, where applicable, energy consumption per unit volume of water pumped. These estimates will be utilized solely for techno-economic evaluation and comparative analysis. All cost information submitted will be treated confidential, and the inclusion of such details at this stage does not constitute any procurement commitment or financial obligation on the part of NTPC. Applicants will submit the technical data/ information, guarantee parameters, the total estimated project cost and other information as sought in Section-V.

### **3.0 Submission Process & Timeline**

- **Submission Format:** Interested parties are requested to submit their proposals in PDF format (maximum 25 pages), including technical concept, indicative cost estimates, and credentials.
- **Deadline:** Proposals should be submitted by due date i.e. 15.01.2026
- **Submission Email/Portal:** All proposals must be submitted electronically to puneetsharma@ntpc.co.in with the subject line: "Eoi – Technical Proposals for Water Withdrawal Solutions for NTPC Projects".
- **Clarifications:** Any queries regarding this Eoi may be addressed to puneetsharma@ntpc.co.in no later than 25.12.2025
- **Evaluation & Next Steps:** NTPC will review all proposals and may invite shortlisted applicants for further discussions, presentations, or detailed feasibility engagements.
- The proposals will be evaluated on the basis of objective and measurable criteria including proven execution experience of at least one installation with pumping capacity exceeding 5,000 m<sup>3</sup>/hr; technical robustness and reliability of the proposed solution under seasonal fluctuations and river level variations (minimum range of 20–30 m); conformity to statutory, environmental and regulatory requirements; maintainability; energy efficiency in terms of specific energy consumption (kWh/m<sup>3</sup>); and overall cost competitiveness based on indicative capital and operational costs.



#### **4.0 Eligibility conditions for Participation in EOI**

**4.1** All international and domestic agencies of repute

**4.2** The applicant must have successfully designed, engineered, or implemented at least one river-water withdrawal system with a minimum pumping capacity of 5,000 m<sup>3</sup>/hr, supported by documentary evidence.

**4.3** The Applicant should give a minimum pumping capacity of 9000m<sup>3</sup>/hr for the proposal.

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## **Section - III**

### **Instructions to the Applicants**

(GLOBAL INVITATION OF EXPRESSION OF INTEREST)

**INSTRUCTIONS TO THE APPLICANTS**

**1.0 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, Application Form and Annexures given in Section-V shall be duly filled 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-V.
- d. Applicants shall mention the name and contact details of two persons, with complete address, phone number and email id.
- e. NTPC Ltd. 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.

**2.0 Enquiries and clarifications**

Any clarifications on the EOI may be sought to the following via e-mail:

To: [puneetsharma@ntpc.co.in](mailto:puneetsharma@ntpc.co.in)

CC to: [akshaytandon@ntpc.co.in](mailto:akshaytandon@ntpc.co.in), [ashishkumar07@ntpc.co.in](mailto:ashishkumar07@ntpc.co.in)

**3.0 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,

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

on account of the amendment, as a part of the EOI. NTPC may, at its discretion, extend the deadline for the submission of EOIs.

**4.0 Preparation of the response to EOI**

The application of EOI shall consist of Annexure-1, 2, 3, 4 and 5 of Section-V.

**5.0 Validity of the responses**

The Applicant shall submit the responses which shall remain valid up to six (6) months after the response Deadline ("Response Validity"). NTPC reserve the right to reject any response, which does not meet the above-mentioned validity requirement.

NTPC may solicit the Applicant's consent for an extension of the period of validity of the response. The request and the response in this regard shall be in writing. In the event any Applicant refuses to extend its response validity as requested by NTPC, NTPC shall terminate processing of such Applicant's responses. An Applicant accepting NTPC request for validity extension shall not be permitted to modify its response.

**6.0 Submission of the response to EOI**

The responses to the EOI are to be submitted in soft copy via below e-mail format-

To: [puneetsharma@ntpc.co.in](mailto:puneetsharma@ntpc.co.in)

CC to: [akshaytandon@ntpc.co.in](mailto:akshaytandon@ntpc.co.in), [ashishkumar07@ntpc.co.in](mailto:ashishkumar07@ntpc.co.in)

**Ref. EOI No. NTPC/PE/SE/EOI-01/2025-26**

**Dated 01.12.2025**

**Submitted to:**

[puneetsharma@ntpc.co.in](mailto:puneetsharma@ntpc.co.in)

**Submitted by:**

All the pages of the response should be duly stamped and signed by the authorized signatory. The responses to the EOI should be submitted within the deadline at the e-mail address provided in the Section-I of this EOI.

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

**7.0 Costs and expenses towards response to EOI**

The Applicants shall be responsible for all the costs associated with the preparation of the response and participation in discussions and finalization & execution of the documents related with this EOI, NTPC shall not be responsible in any way for such costs, regardless of the conduct or outcome of this short-listing/ selection process.

**8.0 Disclaimer**

This Expression of Interest (EOI) has been prepared by NTPC Ltd. for response from Indian/Global Company/their Consortium/Affiliates/Representatives to solicit global interest, concepts, and technical proposals for establishing robust and efficient water withdrawal systems from rivers.

In submitting the response to the EOI, the Applicant certify that it understands, accepts, and agrees 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.

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## **Section-IV**

### **Consideration of Response**

(GLOBAL INVITATION OF EXPRESSION OF INTEREST)

CONSIDERATION OF RESPONSE

**Responsiveness check**

The responses submitted by Applicants shall be scrutinized and may be rejected in following conditions-to establish interest in setting the stated facility. Responses shall be deemed non-responsive for following reasons:

- Responses that are incomplete, i.e., not accompanied by any of the applicable formats inter-alia covering letter power of attorney, applicable undertakings, provided in more details at annexure in Section-V.
- Responses not signed by authorized signatory and / or stamped in the manner indicated in this EOI.
- Material inconsistencies in the information/ documents submitted by the Applicant.
- An Applicant submitting more than one response to this EOI either itself or through an affiliate or subsidiary company.
- Response validity being less than that required as per Clause 5 of section-III of this EOI.
- Response being conditional in nature.
- Response not received by the response Deadline.
- Response having Conflict of Interest.
- Applicant delaying in submission of additional information or clarifications sought by NTPC, as applicable.

All bids that shall meet the responsive check requirements set out above in this section of the EOI document shall be considered as responsive. In case of non-submission of relevant details as above, the responses may be considered as “**non-responsive**”, at the sole discretion of NTPC and will not be considered further.

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## **Section-V**

### **Application Form & Annexures**



**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

**Annexure-1**

**FORMAT FOR COVERING LETTER CUM UNDERTAKING**

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

Date : \_\_\_\_\_ Place : \_\_\_\_\_

To,

.....

**Sub.: (INVITATION FOR EXPRESSION OF INTEREST)**

**Ref.: EOI No. \_\_\_\_\_, dated \_\_\_\_\_ (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 response 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, as amended. In token of our acceptance to the EOI, the same have been signed & stamped by us and enclosed to the response. We hereby confirm that the provisions of the EOI shall be binding on us.
2. We have submitted our response strictly as per provisions and formats of the EOI, without any deviations, conditions and without mentioning any assumptions or notes.
3. We hereby unconditionally and irrevocably agree and accept that the decision made by NTPC in respect of any matter regarding or arising out of the EOI shall be binding on us. We hereby expressly waive any or all claims in respect of EOI process. We confirm that there are no litigations or disputes against us, which materially affect our ability to participate or function under the obligations regarding EOI.

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

4. Details of the contact person are furnished as below:

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: [puneetsharma@ntpc.co.in](mailto:puneetsharma@ntpc.co.in) as per the EOI for consideration.
6. It is confirmed that our response is consistent with all the requirements of submission as stated in the EOI and subsequent communications from NTPC, if any.
7. 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. We would be solely responsible for any errors or omissions in our response.

We confirm that all the terms and conditions of our response are valid for acceptance for a period of six (6) months from the response Deadline.

8. We confirm that we have not taken any deviation so as to be deemed **"Non-Responsive"** as stipulated in Section-IV of this EOI.
9. We understand that you are not bound to accept any response you receive.
10. We declare that our firm is neither put on Holiday or Black-listed by any Government / PSU / Private firm or Financial Institution.
11. We understand that you are not bound to accept any response you receive.

We remain,

Yours sincerely

(Name, Designation and Signature of Authorized Person)

(GLOBAL INVITATION OF EXPRESSION OF INTEREST)

**Annexure-2**

**APPLICANT'S ORGANIZATION DETAILS TO BE SUBMITTED BY APPLICANT**

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

- 1) Name of the Company
- 2) Legal status of the Company
- 3) Brief description of the Company including details of its business groups/subsidiaries/ affiliates:
- 4) Existing Manufacturing facilities – Locations, Capacity
- 5) Date of Incorporation:
- 6) Date of Commencement of Business:
- 7) 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:
- 8) Collaborations/tie-ups with manufacturer (if applicable),
- 9) Details of Indian parties, if any, for installation, supply, services, and collaboration
- 10) Financial Data of Organization (Attach Relevant document in proof of same)

Applicant is requested to submit Annual financial turnover during the last three (3) preceding financial year. Applicant to submit audited Balance Sheet and Profit & Loss account for the above three financial years.

	Financial year 2024-25	Financial year 2023-24	Financial year 2022-23
Turnover			
Net worth			
Profit			

**Annexure-3**

**TECHNICAL INFORMATION TO BE SUBMITTED BY APPLICANT**

Applicant shall duly furnish following information.

**1.0 About the Technology and Technology Provider**

Applicant shall fill the required details and attach relevant documents as per Table-1, Clause-A and Clause-B, Annexure-4.

**2.0 About the Reference Plant**

Applicant shall fill the required details and attach relevant documents as per Table-1, Clause-C, Annexure-4.

**3.0 About Proposed Facility**

Applicant shall fill the required details and attach relevant documents as per Table-1, Clause-D, Annexure-4.

**4.0 Budgetary Cost:**

**4.1 Estimated total capital investment** for the proposed facility with cost breakup of all major components preferably as listed below along with scope of supply and services, inclusions, exclusions, terminal points, facilities required at site, tentative project schedule:

- All the mechanical and electrical equipments like pumps, motors, transformer etc.
- All associated piping and cabling
- All associated civil works
- Any other item required for smooth functioning of the facility
- Civil/Infrastructure requirement
- Control System
- Installation and Commissioning
- Miscellaneous Items
- Package BOP, as applicable (Transformer / control systems etc. as required for completion of the project)
- Safety and protection systems

**4.2 Estimated Annual O&M cost with spares and consumables.**

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

Note:

- Applicant shall separately mention taxes, duties, freight, insurance applicable for above items/project.
- Applicant shall mention budgetary cost equipment supply for Indian item and imported item separately.
- Financial contribution by the party/ proposed mode of project execution

**5.0 Project Timeline:**

Applicant shall mention project completion period from award of job till Commissioning and Guarantee Test Run with necessary details.

(Sign & Company Seal)

Authorized signatory

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(GLOBAL INVITATION OF EXPRESSION OF INTEREST)

**Annexure-4**

**(Technical Data)**

**Note: Applicant to attach relevant/supporting documents**

Sl. No.	Description	Applicant to fill
<b>(A) About the Technology Provider</b>		
1.	Type of river water withdrawal facility proposed by Applicant	
2.	Whether Technology is owned by Applicant	Yes/No
a)	If no, Name of Technology owner/ developer/ IP Owner	
b)	Registered office of Technology owner/ developer/ IP Owner	
c)	Whether Applicant has technology tie up/ collaboration with Technology owner/developer/ IP Owner	Yes/No (Attached copy of Technology tie up/ collaboration agreement)
d)	Validity period of agreement	
<b>(B) About the Technology</b>		
1.	Write-up of the proposed technology indicating working principle, major operating parameters/ conditions, control philosophy, input requirements (power consumption, utility requirement), guaranteed flow and availability, startup time etc.	
2.	Process flow diagram with write up	
3.	Civil infra and any other associated system writeup	
4.	Technology Readiness Level (7 or more is desirable)	
5.	Best use case, Merits and Demerits and limitations of the technology	
6.	Comparison with other technologies	
7.	Facility pumping data (pressure, flow, impurities etc.)	
8.	Range of the river stage and river water level (HFL & LFL etc.) that can be catered to by the system (in m)	
9.	Overall Efficiency and parameters affecting efficiency/ performance	
10.	Any other relevant details (as applicable)	
<b>(C) Details of reference pilot/commercial Installations</b>		
1.	Name of project where Applicant/ Its Collaborator/ associate installed / is installing or has installed the proposed facility	
2.	Name, address, and contact details of owner of plant	
3.	Scale of plant	(Commercial/ pilot plant)
4.	Design capacity	

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

5.	Date of award	
6.	Date of completion of plant	
7.	Details of facility (fixed or floating or retractable etc..) – Provide GA drawings	
8.	If installation not yet completed, Present status and date of expected completion	
9.	Scope of work of Applicant (Furnish copy of LOA)	
10.	Range/Changes in river stage and river water level that can be catered to (as per designed criteria)	
11.	Actual seasonal variations handled in terms of fluctuations in river width and water level (last 3 year data)	
12.	Flow diagram of the system	
13.	P &ID of main system	
14.	Control philosophy for the overall system (level of automation)	
15.	Enclose user satisfactory performance certificate stating % annual availability during last 3 years	
16.	Availability of the facility (yearly) during last 3 years	
17.	Mean Time Between Failures (last 3 yr)	
18.	Mean Time to Repair (last 3 years)	
19.	Outages (with reasons) of the plant in last 3 years	
20.	Power consumption & Efficiency	
<b>(D) Details of the Proposed System (River water withdrawal system)</b>		
1.	Design capacity of the facility	
2.	Flexibility & scalability	
3.	Output pressure / Head	
4.	Changes, if any, from the reference project	
5.	Required power input for pumping	
6.	Any other input required	
7.	Process flow diagram indicating parameters.	
8.	Overall Efficiency	
9.	Type of system (Fixed/floating/retractable/other)	
10.	Details of associated civil and any other infra	
11.	List of equipment with rated capacity	
12.	Electrical load list of each equipment	

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

13.	Pro & cons of the proposed technology wrt other similar technologies	
14.	Pump type & configuration	
15.	No of pumps and redundancy strategy	
16.	River stage variation range (m)	
17.	River water level variation range (m)	
18.	Hydraulic transients & surge protection	
19.	Debris/silt/sediment management	
20.	Water quality range (turbidity, temp etc)	
21.	Service life of system components (pumps, motors, civil works)	
22.	Replacement frequency and major overhauls	
23.	Expected downtime per year	
24.	Expected/guaranteed availability factor (annually keeping seasonality into consideration)	
25.	Land Area Required (m2)	
26.	P &ID of main system and BOP	
27.	Whether system is compatible for handling the river variations as provided in the EOI.	Yes/No (If no, please furnish type of waste with its analysis for which system is designed.)
28.	Land requirement	
29.	Type of waste generated (during construction & operation)	
30.	Startup time (up to full load)	
31.	Expected life of entire system as a whole (Years) considering no degradation in capacity	
32.	Annual maintenance requirement Maintenance Activities with frequency.	
33.	No. of planned shutdown with duration per year	
34.	Terminal Points and Exclusions	
35.	Environmental impact or footprints of the proposed project wrt ecological, hydrological, local biodiversity and social impacts	
36.	O&M details	
37.	Safety Aspects	
38.	Spares and Consumables	
39.	Guaranteed Availability Factor (as per seasonal variations handled)	
40.	Maximum seasonal variations in river that can be handled by the system	
41.	Desilting arrangement – give details	
42.	Any other technical details, applicant would like to highlight about the proposed technology	
43.	Input data (if any) required from NTPC	



**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

<b>Other Data</b>		
44.	% of Indian content of equipment supply	
45.	% of Imported content of equipment supply and source of country	
46.	Completion schedule of project (in month)	
47.	Details of support required from NTPC during execution of the proposed project	
48.	In case Applicant has technology tie up/collaboration with technology owner/ developer/IP Owner, detail scope of technology support from collaborator to be indicated	
49.	Details of clearances and approvals required prior to implementation	

**(GLOBAL INVITATION OF EXPRESSION OF INTEREST)**

**Annexure-5**

**(Indicative cost estimates)**

<b>Indicative Cost (in INR)</b>	
Capital Cost* (including all taxes as per Indian tax regime)	
Annual Operational Cost**	
Other cost, if any	

\* For required facility as per conditions indicated in cl no

\*\* All including electricity charges, spares & consumables, manpower requirement, AMC etc...Electricity rate shall be considered at Rs 5/- per unit.

## Annexure – 6

### Layout of the proposed system

*(Applicants must give technological solutions along with respective indicative cost for this layout only)*



Pumping requirement/capacity : 9000 m<sup>3</sup>/hr

Silt Factor

0.51

Max Velocity of water in river

3.9 m/s

River Water level (high & low) and other Geotech data are as follows:

HFL

RL = 86

LWL

RL = 66

