

(INVITATION FOR EXPRESSION OF INTEREST)

NTPC Limited

(A Government of India Enterprise)



Invites

EXPRESSION OF INTEREST (EOI)

for exploring the vendor base for supply and installation of Surface Hydrokinetic Turbine technology at CW Channel of NTPC Power Plant

DOCUMENTS OF EOI

This EOI document comprises 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

(INVITATION FOR EXPRESSION OF INTEREST)

Section - I

EOI Information

(INVITATION FOR EXPRESSION OF INTEREST)

DETAILED NOTICE INVITING EXPRESSION OF INTEREST (EOI)

EOI No.: NTPC/PEM/EOI/SurfaceHKT/2025-26

Date: 07.06.2026

NTPC is Inviting an Expression of INTEREST (EOI) for exploring the vendor base for supply and installation of Surface Hydrokinetic Turbine technology at CW Channel of NTPC Power Plant in India

1. NTPC Limited (A Government of India Enterprise) intends to **explore the vendor base for supply and installation of Surface Hydrokinetic Turbine technology** at CW Channel of NTPC power plant in India. In this regard, NTPC Limited invites Expression of Interest (EOI) from any Indian Company. (**Hereinafter called APPLICANT**).

Note: This EOI is to assess prospects of vendor base for supply and installation of Surface Hydro Kinetic Turbine technology. After identifying the APPLICANTs through EOI who are interested in setting up Surface Hydro Kinetic Turbine and fulfilling all technical requirements, vendor base shall be prepared. The applicant may be required to set-up a pilot project at any one station of NTPC as per mutual discussions provided that applicant has any reference of pilot installation of their technology in any other industry/location.

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://eprocurrentpc.nic.in>
- b. Last date for submission of EOI : 10.07.2026
- c. Response Validity : 2 months from Last Date of EOI submission

(INVITATION FOR EXPRESSION OF INTEREST)

3. NTPC encourages submission of EOI in soft copy. For consideration of EOI, APPLICANTS are required to e-mail softcopy of EOI, completed in all respect, through e- mail mentioned hereunder. If APPLICANTS also wish to submit hard copy of the EOI, the same can be submitted either in person or by registered/ speed post till the last date of submission of EOI to the following address: -

To: Sr Manager (PE-Mechanical/TG & System)

Email: apurva@ntpc.co.in

Project Engineering (Mechanical/TG & System), 4th Floor

NTPC Limited, SRHQ, NTPC Bhavan, Kavadi guda, Secunderabad-500080

4. 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.

(INVITATION FOR EXPRESSION OF INTEREST)

Section - II

Introduction

(INVITATION FOR EXPRESSION OF INTEREST)

1. **INTRODUCTION**

- i. NTPC Limited is a Govt. of India Enterprise. NTPC group produces electricity through its cluster of gas, coal, hydro and RE based power stations of more than 90 GW capacity spanning across the country.
- ii. NTPC Ltd., in keeping focus on evolving power market, intends to explore the vendor base for supply and installation of Surface Hydrokinetic Turbine technology, who are fulfilling all requirements.
- iii. Surface Hydro Kinetic Turbine technology is an innovative renewable energy solution that generates electricity from the kinetic energy of flowing water bodies such as rivers, canals, and tidal streams without the need for large dams or significant water storage structures. Unlike conventional hydropower plants, Surface Hydro Kinetic Turbine technology utilize the natural flow velocity of water at or near the surface to rotate turbine blades and produce power.
- iv. Due to its modular design, it is gaining attention as an alternative clean energy source that supports energy security and reduction of carbon emissions. With increasing focus on renewable energy and green technologies, Surface hydro kinetic Turbine technology offers significant potential for harnessing untapped hydrokinetic resources efficiently and sustainably.
- v. Based on response in EOI, NTPC shall identify the vendor base for supply and installation of Surface Hydro Kinetic Turbine technology. The applicant may be required to set-up a pilot project at any one station of NTPC as per mutual discussions provided that applicant has any reference of pilot installation of their technology in any other industry/location.

(INVITATION FOR EXPRESSION OF INTEREST)

2. INTENT OF THE EXPRESSION OF INTEREST (EOI)

NTPC is exploring Surface Hydrokinetic Turbine technology for deployment in Cooling Water (CW) channels to harness the kinetic energy of circulating water. Such installations can generate clean electricity using existing infrastructure with minimal environmental impact, supporting NTPC's sustainability objectives

- i. CW channels have continuous and predictable water flow, which is one of the key requirements for hydrokinetic power generation. Hydrokinetic systems are considered suitable for canals, industrial water channels, which are hydraulically similar to many NTPC CW channels.
- ii. The purpose of this EOI is to explore the suitable vendor base for supply and installation of Surface Hydro Kinetic Turbine technology at CW Channel of NTPC Power Plant in India, who are fulfilling all requirements.
- iii. Based on the responses in the EOI and further discussions with interested parties, NTPC shall prepare the vendor base for supply and installation of Surface Hydro Kinetic Turbine technology. The applicant may be required to set-up a pilot project at any one station of NTPC as per mutual discussions provided that applicant has any reference of pilot installation of their technology in any other industry/location.

The Applicants may express their interest in respect of their offerings along with other inputs as indicated in relevant Annexures/formats.

(INVITATION FOR EXPRESSION OF INTEREST)

Section - III

Instructions to the Applicants

(INVITATION FOR EXPRESSION OF INTEREST)

1. 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. Enquiries and clarifications

Any clarifications on the EOI may be sought to the following via email:

To: apurva@ntpc.co.in

CC to: pawandwivedi@ntpc.co.in

3. 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.

4. Preparation of the response to Eoi

The application of EOI consists of the following:

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

(INVITATION FOR EXPRESSION OF INTEREST)

5. Validity of the responses

The Applicant shall submit the responses which shall remain valid up to two (2) months after the response Deadline (“Response Validity”). NTPC reserve the right to reject any response, which does not meet the aforementioned 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. Submission of the response to Eoi

The responses to the Eoi are to be submitted in soft copy via below e-mail format
To: apurva@ntpc.co.in
CC to: pawandwivedi@ntpc.co.in

Ref. Eoi No.

Dated

Submitted to:

Name, designation & address of the concerned officer of NTPC

To: Sr Manager (PE-Mechanical/TG & System)

Email: apurva@ntpc.co.in

Project Engineering (Mechanical/TG & System), 4th Floor

NTPC Limited, SRHQ, NTPC Bhavan, Kavadi guda, Secunderabad-500080

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 favour the Power of Attorney is issued.

The responses to the EOI should be submitted within the Deadline at the address provided in the Section-I of this EOI.

7. 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.

(INVITATION FOR EXPRESSION OF INTEREST)

8. 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, except:

- (a) To their professional advisors;
- (b) To their officers, contractors, employees, agents or representatives, financiers, who need to have access to such information for the proper performance of their activities;
- (c) Disclosures required under applicable Law, without the prior written consent of the other parties of the concerned agreements.

Provided that the Applicant(s) agrees and acknowledges that NTPC may at any time, disclose the terms and conditions of this EOI and any document related or pursuant to this EOI to any person, to the extent stipulated under the applicable Law.

9. Disclaimer

- (a) This Expression of Interest (EOI) has been prepared by NTPC Ltd. for response from Indian Company for exploring the vendor base for supply and installation of Surface Hydro Kinetic Turbine technology at CW Channel of NTPC power plant in India. The applicant may be required to set-up a pilot project at any one station of NTPC as per mutual discussions provided that applicant has any reference of pilot installation of their technology in any other industry/location.
- (b) In submitting an expressed EOI in response to the EOI, the Applicants 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.

(INVITATION FOR EXPRESSION OF INTEREST)

Section-IV

Consideration of Response

(INVITATION FOR EXPRESSION OF INTEREST)

RESPONSIVENESS/EVALUATION METHODOLOGY

1. Responsiveness check

The responses submitted by Applicants shall be scrutinized to establish the technical requirement for Surface Hydro Kinetic Turbine technology. Responses shall be deemed non-responsive for following reasons:

- a. 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;
- b. Responses not accompanied by Essential Information as prescribed in Annexure 3 in Section-V.
- c. Responses not signed by authorized signatory and / or stamped in the manner indicated in this EOI;
- d. Material inconsistencies in the information/ documents submitted by the Applicant
- e. An Applicant submitting more than one response to this EOI either itself or through an affiliate or subsidiary company;
- f. Response validity being less than that required as per Clause 5 of section-III of this EOI;
- g. Response being conditional in nature;
- h. Response not received by the response Deadline;
- i. Response having Conflict of Interest;
- j. Applicant delaying in submission of additional information or clarifications sought by NTPC, as applicable;

All response to the EOI 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.

(INVITATION FOR EXPRESSION OF INTEREST)

Section-V

Application Form & Annexures

(INVITATION FOR 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 and 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 with regard to EOI.

(INVITATION FOR 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: ----- 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.
8. We confirm that all the terms and conditions of our response are valid for acceptance for a period of two (2) months from the response Deadline.
9. We confirm that we have not taken any deviation so as to be deemed “**Non-Responsive**” as stipulated in Section-IV of this EOI.
10. We understand that you are not bound to accept any response you receive.

We remain,

Yours sincerely

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

(INVITATION FOR EXPRESSION OF INTEREST)

Annexure-2

INFORMATION 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 commercial/ demonstration 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. Documents to be enclosed:

Technical Credentials – Relevant Product/System catalogues, Experience /Reference List, Copies of Customer Certificates, Engineering strengths, collaborations/tie-ups with manufacturer (if applicable), quality accreditations, etc.

9. In case of name change of company or acquirement of any other company, supporting document pertaining to this along with the document establishing the technological capability details.
10. Any other documents considered relevant.

(Sign & Company Seal)
Authorized signatory

(INVITATION FOR EXPRESSION OF INTEREST)

Annexure-3

INFORMATION TO BE SUBMITTED BY APPLICANT

Essential Information:

- A. Whether any Surface Hydro Kinetic Turbine has been supplied/ to be supplied? Whether same has been Designed/Manufactured by himself, if not then detail of company who designed/manufactured Surface Hydro Kinetic Turbine.

- B. Key characteristics of the Surface Hydro Kinetic Turbine system-
 1. Rated Power Output (kW/MW)
 2. Minimum and Optimum Water Flow Velocity Requirement
 3. Turbine Efficiency at Different Flow Conditions
 4. Type of arrangement: Floating / Fixed mounting arrangement
 5. Operating Water Depth Requirement
 6. Dimensions and Weight of Complete Assembly
 7. Material of Construction
 - Corrosion resistance
 - Suitability for continuous water exposure
 8. Design Life of Equipment
 9. Civil Structure Requirement for Installation
 10. Foundation and Mounting Arrangement Details
 11. Impact on Existing CW Channel Hydraulics
 - Pressure drop
 - Flow obstruction
 - Backwater effect
 12. Electrical System Details
 13. Type of Generator
 14. Protection Systems Provided (Overspeed, Vibration etc.)
 15. Performance Guarantee Parameters
 16. Auxiliary Power Consumption
 17. Maintenance Requirement and Maintenance Frequency
 18. Debris Handling and Anti-Clogging Arrangement
 19. Noise and Vibration Characteristics
 20. Environmental Impact Assessment
 21. Installation Time and Commissioning Schedule
 22. Availability and Reliability Guarantees
 23. Previous Installations and Operational References
 - Previous installation was commercial project/Pilot Project
 - Any set back in previous installation

(INVITATION FOR EXPRESSION OF INTEREST)

24. Compliance with Applicable Indian/International Standards
25. Estimated Annual Energy Generation (BU/MU)
26. Techno-Economics Details
28. Suitability for NTPC Cooling Water (CW) Channel Application
29. Requirement of Shutdown During Installation/Maintenance
30. Scalability and Modular Expansion Capability
31. Indigenous Content and Make-in-India Compliance
32. Intellectual Property / Patent / Licensing Details

C. Safety aspects