



शुद्धिपत्र-1 / CORRIGENDUM-1

नैट्रैक्स पीथमपुर में इस दस्तावेज़ में दिए गए विवरण के अनुसार जल उपचार संयंत्र ऑडिट करने के लिए सलाहकार की नियुक्ति/ Hiring of consultant to Conduct Water treatment plant Audit as per details given in this document at NATRAX Pithampur



APRIL 8, 2025

National Automotive Test Tracks (NATRAX)

A unit of National Automotive Board (under Ministry of Heavy Industry, Govt of India)

Pithampur, Near Indore, Madhya Pradesh, India

शुद्धिपत्र-1/Corrigendum-1

कार्य का नाम:/ Name of work:	इस दस्तावेज़ में दिए गए विवरण के अनुसार नैट्रैक्स पीथमपुर में जल उपचार संयंत्र ऑडिट करने के लिए सलाहकार की नियुक्ति हेतु प्रस्ताव हेतु अनुरोध (आरएफपी)।	Request for Proposal (RFP) for hiring of consultant to Conduct Water treatment plant Audit as per details given in this document at NATRAX Pithampur.
आरएफपी नं. RFP No.	NATRAX/PROC/PG C&M/25/95	NATRAX/PROC/PG C&M/25/95
Last Date for Bid Submission has been extended	15 अप्रैल 2025 (03:00 अपराह्न)	15 th April 2025 (03:00 PM)
Opening of Technical Bid shall be	15 अप्रैल 2025 (03:30 अपराह्न)	15 th April 2025 (03:30 PM)
अन्य नियम और शर्तें RFP संख्या NATRAX/PROC/PG C&M/25/95 के अनुसार होंगी/ Other terms and conditions shall be as per RFP No. NATRAX/PROC/PG C&M/25/95		

Thanks & Regards

For NATRAX



प्रस्ताव हेतु अनुरोध/REQUEST FOR PROPOSAL (RFP)

नैट्रैक्स पीथमपुर में इस दस्तावेज़ में दिए गए विवरण के अनुसार जल उपचार संयंत्र ऑडिट करने के लिए सलाहकार की नियुक्ति/ Hiring of consultant to Conduct Water treatment plant Audit as per details given in this document at NATRAX Pithampur



MARCH 11, 2025

National Automotive Test Tracks (NATRAX)

A unit of National Automotive Board (under Ministry of Heavy Industry, Govt of India)

Pithampur, Near Indore, Madhya Pradesh, India



RFP Document for Water treatment Plant Audit

1. सामान्य जानकारी:/General Information:

नेशनल ऑटोमोटिव टेस्ट ट्रैक्स (NATRAX) नेशनल ऑटोमोटिव बोर्ड (NAB) के तहत एक ऑटोमोटिव परीक्षण और प्रमाणन केंद्र है, जो भारत सरकार के भारी उद्योग मंत्रालय द्वारा गठित एक स्वायत्त निकाय है। NATRAX की स्थापना लगभग 3000 एकड़ भूमि पर सभी प्रकार के ऑटोमोबाइल के व्यापक परीक्षण और मूल्यांकन के लिए पीथमपुर, जिला धार, (मध्य प्रदेश, भारत) के पास की गई है।/ **National Automotive Test Tracks (NATRAX)** is an Automotive Testing & Certification Centre under National Automotive Board (NAB) which is an autonomous body constituted by Ministry of Heavy Industries, Government of India. NATRAX has been set up on approx. 3000 acres of land for comprehensive testing and evaluation of all types of automobiles, near Pithampur, Dist. Dhar, (Madhya Pradesh, India).

2. राष्ट्रीय ऑटोमोटिव टेस्ट ट्रैक्स (नैट्रैक्स), इस आरएफपी दस्तावेज़ में निहित नियमों और शर्तों पर कार्यों के निष्पादन, निष्पादन और कार्यान्वयन के लिए निर्धारित प्रोफार्मा में ओपन टेंडर इंकवायरी (ओटीई) के तहत पंजीकृत, योग्य और अनुभवी से दो पैकेट सिस्टम (तकनीकी बोली और वित्तीय बोली) में पासवर्ड संरक्षित कोटेशन / बोली / प्रस्ताव आमंत्रित करता है।/The National Automotive Test Tracks (NATRAX), invites **Password Protected Quotation/Bid/Proposal in two packet system** (Technical bid & Financial Bid) from the registered, qualified and experience under Open Tender Enquiry (OTE) in the prescribed Proforma for performing, executing and implementing the works on the terms and conditions contained in this RFP Document.

3. Key information on RFP: PROJECT AT GLANCE

कार्य का नाम:/ Name of work:	इस दस्तावेज़ में दिए गए विवरण के अनुसार नैट्रैक्स पीथमपुर में जल उपचार संयंत्र ऑडिट करने के लिए सलाहकार की नियुक्ति हेतु प्रस्ताव हेतु अनुरोध (आरएफपी)।	Request for Proposal (RFP) for hiring of consultant to Conduct Water treatment plant Audit as per details given in this document at NATRAX Pithampur.
आरएफपी नं. RFP No.	NATRAX/PROC/PG C&M/25/95	NATRAX/PROC/PG C&M/25/95
Release Date	10 मार्च 2025	10 th March 2025
Pre-Bid Enquiries via Email	18 मार्च 2025 (10:30 पूर्वाह्न) "नैट्रैक्स पीथमपुर में"	18 th March 2025 (10:30 AM) "at NATRAX Pithampur"
Last Date for Bid Submission	31 मार्च 2025 (03:00 अपराह्न)	31 th March 2025 (03:00 PM)
Opening of Technical Bid	31 मार्च 2025 (03:30 अपराह्न)	31 th March 2025 (03:30 PM)

वित्तीय बोली खोलना/ Opening of Financial Bid	तकनीकी रूप से “योग्य” बोलीदाताओं को खुलने से 24 घंटे पहले सूचित किया जाएगा।	Shall be communicated to technically “Qualified” bidders, 24 hours prior than opening.
बोली सुरक्षा/ईएमडी/ Bid Security/EMD	5,000/- रुपये एफडीआर/डीडी/बीजी/एनएटीआरएक्स खाते में सीधे हस्तांतरण के रूप में, NATRAX के पक्ष में, जारी होने की तारीख से कम से कम 4 महीने के लिए वैध होना चाहिए।	Rs. 5,000/- in form of FDR/DD/BG/direct Transfer to NATRAX account, in favour of NATRAX, should be valid at least for 4 months from the date of issuance.
निष्पादन सुरक्षा/ Performance Security (PS)/Security Deposit (SD)	अनुबंध राशि का 5%, सभी अनुबंध संबंधी दायित्वों के पूरा होने की तारीख से कम से कम 2 महीने के लिए वैध होना चाहिए।	5 % of the contract amount, should be valid at least 2 months from the date of completion of all contractual obligations.
पत्राचार अधिकारी (स्पष्टीकरण/सूचना हेतु)/Correspondence Officer (For Clarification / Information)	श्री ए प्रभाकर वरिष्ठ प्रबंधक (पी एंड एस), खरीद और स्टोर, राष्ट्रीय ऑटोमोटिव टेस्ट ट्रैक (NATRAX) Address: नैट्राक्स पीथमपुर धार एमपी Email ID: a.prabhakar@natrip.in	Sh. A Prabhakar Sr. Manager (P&S), Procurement & Stores, National Automotive Test Tracks (NATRAX) Address: NATRAX Pithampur Dhar MP Email ID: a.prabhakar@natrip.in
नोट: बोलियां/प्रस्ताव तकनीकी बोली खुलने की तिथि से 4 माह (120 दिन) तक वैध होनी चाहिए।	Note: Bids/proposal should be valid for 4 months (120 days) from the date of opening of technical bid.	

4. प्रस्ताव प्रस्तुत करना और उसका मूल्यांकन/Submission and Evaluation of Proposal:

प्रस्ताव नीचे दिए गए किसी भी तरीके से प्रस्तुत किया जा सकता है/the proposal can be submitted in either of below methods:

- 4.1. **ईमेल पर पासवर्ड संरक्षित पीडीएफ फ़ाइल/Password Protected Pdf File on email:** प्रस्ताव ईमेल के माध्यम से a.prabhakar@natrip.in, anuj.kumar@natrip.in और je.procurement@natrax.in पर दो अलग-अलग पासवर्ड से सुरक्षित फाइलों “तकनीकी बोली” और “वित्तीय बोली” में प्रस्तुत किए जा सकते हैं। दोनों फाइलों में अलग-अलग पासवर्ड होने चाहिए।/The proposals can be submitted via email to a.prabhakar@natrip.in, anuj.kumar@natrip.in & je.procurement@natrax.in, in two different password protected file “Technical Bid” & “Financial Bid”. Both the files should have different passwords.

तकनीकी बोली फ़ाइल में योग्यता, बोलीदाता प्रोफाइल, अनुभव, टीम विवरण आदि के लिए आवश्यक सभी दस्तावेज़ शामिल होने चाहिए।/Techncial bid file” should contained all the documents required for qualification, bidders profile, experince, team details etc.



RFP Document for Water treatment Plant Audit

वित्तीय बोली फ़ाइल में केवल इस दस्तावेज़ के अंत में दिए गए प्रारूप में दरें होनी चाहिए/ **Financial Bid File** should contain only the rates in the format given at last of this document.

ई-मेल में परियोजना का नाम स्पष्ट रूप से दर्शाया जाना चाहिए "NATRAX में जल उपचार संयंत्र ऑडिट आयोजित करने के लिए RFP"/ The e-mail must clearly indicate the name of the project "**RFP to Conduct Water treatment plant Audit at NATRAX**"

पासवर्ड केवल NATRAX से लिखित अनुरोध के बाद ही साझा किया जाना चाहिए, उससे पहले इसे किसी भी माध्यम से साझा नहीं किया जाना चाहिए। यदि कोई बोलीदाता NATRAX द्वारा अनुरोध से पहले पासवर्ड साझा करता है तो संबंधित बोलीदाता की बोली अस्वीकार कर दी जाएगी/ The passwords should only be shared after written request from NATRAX, before the same it should not be shared by any means. If any, bidder share password before request by NATRAX the bid of respective bidder shall be rejected.

या/OR

सीलबंद लिफाफों में ऑफलाइन बोली प्रस्तुत करना: बोलीदाता अपनी बोली सीलबंद लिफाफों में प्रस्तुत कर सकता है अर्थात् बोलीदाता को बोली को दो अलग-अलग भागों "तकनीकी बोली" और "वित्तीय बोली" में तैयार करना होगा।/ **Offline bid submission in sealed envelopes:** bidder can submit its bid in sealed envelopes viz bidder need to prepare the bid in two different parts "Technical Bid" & "Financial Bid".

पहले लिफाफे में "तकनीकी बोली लिफाफे" में योग्यता, बोलीदाता प्रोफाइल, अनुभव, टीम विवरण, पूर्ण आरएफपी दस्तावेज़ आदि की प्रति के लिए आवश्यक सभी दस्तावेज़ शामिल होने चाहिए।/ In first Envelope "**Technical Bid Envelope**" should contain all documents required for qualification, bidders profile, experince, team details, copy of complete RFP Document etc.

दूसरे लिफाफे में "वित्तीय बोली लिफाफा" में केवल इस आरएफपी दस्तावेज़ के अंत में दिए गए प्रारूप में दरें होनी चाहिए/ In second Envelope "**Financial Bid Envelope**" should contain only rates in the format as given at last of this RFP documents.

दोनों सीलबंद लिफाफे (तकनीकी बोली और वित्तीय बोली) को एक मुख्य लिफाफे में रखना चाहिए और उसे सील करने के बाद नीचे दिए गए पते पर जमा करना चाहिए/ Both sealed envelopes (Technical Bid & Financial Bid) should keep in a main envelope and after sealing the same, it should submit on below given address:

To,
Head Procurement & Stores



National Automotive Test Tracks (NATRAX)
 A Unit of National Automotive Board (NAB)
 Under ministry of heavy industry Govt of India
 Address: Pithampur, Near Indore, Madhya Pradesh 454774

मूल्यांकन समिति, बोलीदाताओं के तकनीकी प्रस्तावों का मूल्यांकन "निष्पादन की पद्धति, कार्यक्षेत्र की समझ, अनुभव, टीम की योग्यता और इस आरएफपी दस्तावेज़ में परिभाषित मानदंडों के आधार पर करेगी।/ The Evaluation Committee shall evaluate the Technical Proposals for bidders based on methodology of execution, understanding of scope and qualification of Team, experience as per criteria defined in this RFP document.

5. मूल्यांकन प्रक्रिया और मानदंड/ EVALUATION PROCESS AND CRITERIA:

5.1. पूर्व-योग्यता मानदंड/ PRE-QUALIFICATION CRITERIA

क्रम सं./ Sl. No.	पूर्व-योग्यता मानदंड/ Pre-Qualification Criteria	सहायक दस्तावेज़/ Supporting Documents
1.	<p>कंपनी को कंपनी अधिनियम, 2013 के तहत भारत में पंजीकृत होना चाहिए या साझेदारी फर्म को भारतीय भागीदारी अधिनियम 1932 के तहत पंजीकृत होना चाहिए या एलएलपी अधिनियम 2008 के तहत पंजीकृत एलएलपी होना चाहिए जिसका पंजीकृत कार्यालय भारत में हो या व्यक्तिगत/स्वामित्व वाली फर्म को एमएसएमई/जीएसटी के साथ पंजीकृत होना चाहिए।/</p> <p>The Company should be registered in India under the Companies Act, 2013 or a partnership firm registered under the Indian Partnership Act 1932 or LLP registered under LLP Act 2008 with their registered office in India or Individual / Proprietary Firm registered with MSME/GST.</p>	<p>(निगमन/पंजीकरण प्रमाणपत्र/ एमओए/उद्योग आधार पंजीकरण प्रमाणपत्र की प्रति, जैसा लागू हो)/ (Copy of Certificate of Incorporation/ Registration / MoA / Udyog Aadhaar Registration Certificate as applicable)</p>
2.	<p>कंपनी को 2021-22 से शुरू होने वाले पिछले तीन वित्तीय वर्षों में भारत के भीतर कम से कम तीन जल लेखा परीक्षा सफलतापूर्वक करनी चाहिए।/ The Company should have successfully carried out at least Three Water Audit within India, in the last three Financial Years starting 2021-22.</p>	<p>(पूर्णता प्रमाण पत्र / कार्य आदेश / क्रय आदेश या CA प्रमाणित प्रमाण पत्र)/ (Completion Certificate/ Work Order/ Purchase Order or CA certified certificate)</p>
3.	<p>कंपनी के पास एसोसिएशन ऑफ एनर्जी इंजीनियर्स से प्रमाणित जल दक्षता प्रोफेशनल (CWEP™) होना चाहिए।/ The Company should have Certified Water</p>	<p>(सहायक प्रमाणीकरण के साथ सूची प्रदान की जानी है)/ (List to be provided along with</p>

	Efficiency Professional (CWEPT™) from Association of Energy Engineers.	supporting certification)
4.	कंपनी के पास कैलिब्रेटेड उपकरणों का कम से कम एक सेट होना चाहिए जिसमें सहायक उपकरण के साथ अल्ट्रासोनिक फ्लो मीटर, सहायक उपकरण के साथ ऊर्जा-पावर मीटर, उपयुक्त कनेक्टर के साथ मानक प्रेशर गेज, 5000 मिलीलीटर बीकर, स्टॉपवॉच शामिल हों।/ The Company should have at least one set of Calibrated Instruments consisting of Ultrasonic Flow Meter with accessories, Energy - Power Meter with accessories, Standard Pressure Gauge with suitable connectors, 5000 ml Beaker, Stopwatch.	(उपलब्ध उपकरणों की सूची, मात्रा, तथा संबंधित अंशांकन प्रमाणपत्र प्रदान किया जाना है)/ (List of Instruments available, quantity, and respective Calibration Certificate to be provided)
5.	बोली सुरक्षा/ईएमडी (एमएसएमई/स्टार्टअप को छूट दी गई है)/ Bid Security/EMD (MSME /Startups are Exempted) बोलीदाता को NATRAX के पक्ष में NATRAX खाते में FDR/DD/BG/फंड ट्रांसफर के रूप में 5,000/- रुपये की ईएमडी/बीएस जमा करनी होगी, जो जारी होने की तारीख से कम से कम 4 महीने के लिए वैध होनी चाहिए। / The Bidder must submit EMD/BS of Rs. 5,000/- in form of FDR/DD/BG/fund Transfer to NATRAX account, in favour of NATRAX, should be valid for at least 4 months from the date of issuance. NATRAX Account for EMD Deposit: A/c Name: National Automotive Test Tracks Details as enclosed.	मूल रूप में एफडीआर/डीडी/बीजी/ FDR/DD/BG in original या/ OR (फंड ट्रांसफर के मामले में- चेकलिस्ट में यूटीआर नंबर और भुगतान की तारीख का उल्लेख किया जाना चाहिए) / (in case of fund transfer- UTR No. & Date of Payment needs to be mentioned in Checklist)
6	नियम एवं शर्तों की स्वीकृति/ Acceptance of terms & conditions	इस RFP दस्तावेज़ की पूर्ण मुहर और हस्ताक्षरित प्रति स्वीकृति के रूप में टोकन है/ Complete seal and signed copy of this RFP Document token as acceptance

5.2. तकनीकी मूल्यांकन मानदंड / TECHNICAL EVALUATION CRITERIA:

Sl. No.	Technical Evaluation Criteria	Points
1	The Company should be registered in India under the Companies Act, 2013 or a partnership firm registered under the Indian Partnership Act 1932 or LLP registered under LLP Act 2008 with their registered	10 Marks



RFP Document for Water treatment Plant Audit

	office in India or Individual / Proprietary Firm registered with GST/MSME.	
2	The Company should have successfully carried out at least Three Water Treatment Plants Audit within India in any of the last three Financial Years starting 2021-22. 3 – 5 Audits: 15 Marks 6 – 10 Audits: 20 Marks 11-15 Audits: 25 Marks <i>(Note: Bidder should highlight either one of the above criteria to be considered. Mentioning both would lead to disqualification)</i>	25 Marks
3.	The Company should have Certified Water Efficiency Professional (CWEP™).	10 Marks
4.	The Company should have at least one set of Calibrated Instruments consisting of Ultrasonic Flow Meter with accessories, Energy – Power Meter with accessories, Standard Pressure Gauge with suitable connectors, 5000 ml Beaker, and Stopwatch. Ultrasonic Flow Meter with accessories: 15 Marks Energy – Power Meter with accessories: 10 Marks Standard Pressure Gauge with suitable connectors: 10 Marks 5000 ml Beaker & Stopwatch: 5 Marks	40 Marks
5.	Methodology of Execution: Detailed methodology is to be provided stating the execution plan be used to accomplish the scope of work provided, understanding of CGWA Norms, Structure of Report, Adherence to the Timeline, Team Strength & Qualification.	15 Marks
Total		100 Marks

5.3. वित्तीय मूल्यांकन/ FINANCIAL EVALUATION:

- 5.3.1 Financial bids of only “technically qualified” bidders shall be opened i.e. of those who score minimum “70 Marks out of 100 Marks” in technical evaluation.
- 5.3.2 The bidder must provide Lumpsum Cost for Auditing of Water Treatment Plant as per the Scope of work. The financial bid must be submitted in the formats given in this document.
- 5.3.3 The financial proposal files submitted to NATRAX must be password protected, failing which bids will not be considered. The password should be provided only when asked by Corresponding Officer of NATRAX during the financial bid opening meeting.
- 5.3.4 The work will be awarded to the bidder with the Lowest Total Financial Bid/Quotation (L1) among all technically qualified bidders.

- 5.3.5 **Price Negotiation:** If competent authority feel necessary, the Negotiation may be done with L-1 bidder only, and bidder need to provide/submit the revised (reduced) rates in the same format give as format for financial bid. The revised rates should be submitted only after the negotiation meeting. The revised offer/counteroffer by any bidder(s) other than L-1 bidder shall not be accepted and the bid of respective bidder shall be rejected immediately.
- 5.3.6 **Award of work:** prior to expiry of bid validity NATRAX will issue work order to successful bidder / lowest quoted bidder (L-1).
- 5.3.7 **Submission of Performance Security:** with 7 days from the date of work order, consultant should submit the Performance Security as defined in the documents.
- 5.3.8 **Contract period:** the over all contract period for complete the audit and submission of final report including acceptance the same by NATRAX is 45 Dyas.

6. कार्य का दायरा और विनिर्देश:/ Scope of Works and Specifications:

6.1. जल पम्पिंग स्टेशन और उपभोग्य सामग्री/ Water Pumping Station & Consumables

NATRAX campus has Central water pumping station & couple of Water Treatment Stations where T-5 & T-3 are big capacity plants while others are in medium / small capacities.

Major consuming areas are TRACKS where water required for the testing purposes and cleaning & maintenance purposes. Most of the water re-utilize with the help of the treatment plants while top up water & other domestic usage requirements are being fulfilled from AKVN & Inhouse sources.

Entire facility is well connected with the water flow meters and auto operated vales which helps the management to keep the records of the water consumptions and provide easy functioning of the pumps, water flow etc.

A dedicated team is there to manage water station, treatment plants in terms of their maintenance, repairs, spares, AMC's, replacements and chemical dosing etc.

6.2. अवलोकन एवं अनुशंसाएँ / Observation & Recommendations

As mentioned above that the entire operations are well equipped with the efficient pumping system including pumps & motors and a water treatment plant(s) operating with their optimum efficiencies.

Water flow meters are too installed to capture & monitor the consumption across the facility.

While conducting the site survey, couple of things which were observed & discussed with management, are as follows:

- 6.2.1. Entire water system is well covered with meters, still there is chance of leakages in the pipe lines connecting to different areas. Always better to go for the water audit study, this will help in finding leakages (if any) in the system and helps in avoiding wastages of water
- 6.2.2. This helps in estimating approximate water quantum as waste, in case any leakage is there in pipeline (underground & over grounded)
- 6.2.3. Pumping system has couple of water pumps varying in the capacities, it is always better to go for the water audit study to check the performances of the pumps in terms of water flow, head, power & efficiencies
 - 6.2.3.1. This helps in estimating the pumps replacement / repair / making a best combination of the pump while operation is in parallel
- 6.2.4. Water network across the treatment plan is so robust, still this study will help us to get something more easy / simple ways to supply the water to end users. This may include piping, Pump & valve operations, dosing schedule and other accessories operating schedules
 - 6.2.4.1. Study will help in identifying the best suited pump combinations & schedules
- 6.2.5. Good part of the system is that it is not process centric where continuous water is require while it is more towards meeting the demand as per schedules. Here we can always take advantages of the shuffling of the schedules of power & water supplies
 - 6.2.5.1. Here study may help in preparing a most suitable schedule of the operations of Pumping systems, water treatment plants & associated accessories. This may further linked with water schedules from AKVN, Power Availability from electricity board and client/ Track schedules
- 6.2.6. Testing of water parameters will further helps to confirm on the water parameters are under standard limits, and fit for the operations
 - 6.2.6.1. This study will support to know the water parameter values, in case any parameter is below / over to the standard, may targeted to make it into limit. This may

again help (indirectly) onto the health of the accessories of the systems

- 6.2.7. Audit study, may also helps in identifying the consumables require for pumping systems and may help in making the inventory list basis to high/medium/low priority items or say proactive & conditioned based maintenance(s)
- 6.2.8. A Thermography Study may also propose for the HT / LT Panels & associated Major DB's / MCCB's / MCB's, this will help in identifying any overheating in the connections / panel.
- 6.2.8.1. This study will help in avoiding incident at electricity system end and a pro-active maintenance / condition-based maintenance can be planned
- 6.3. **अध्ययन के अंतर्गत आने वाली सेवाओं और कार्यप्रणालियों का दायरा (लेखा परीक्षा - पंपिंग स्टेशन, जल परीक्षण और थर्मोग्राफी - पैनल)/ Scope of Services & Methodologies Covering under Studies (Audit - Pumping Stations, Water Testing & Thermography - Panels).**
- 6.3.1. Audit - Pumping Stations & Treatment Plants Pumps - scope of audit study covers detailed onsite & off-site studies to identify both water & energy conservation opportunities i.e. sources specific, process specific, accessories specific and recommend action plans towards water & energy reduction & implementation of the measures.
- 6.3.1.1. Broad scope is to cover review of supplies & treatment structure, electricity, consumption / bills etc., estimation of water & energy consumptions of various major load centres like Treatment Plants, Tracks, Domestic usage, supplies coming from AKVN, performance analysis with the help of onsite measurements of different parameters like water flow, pressure (head), temperature, power etc.
- 6.3.1.2. Water Pumping System - review of water pumping, storage & distribution system
- Water flow measurements with the help of water flow meters, head via pressure gauges, measurement of input power to pumps
 - Performance Assessment of all major water pumps includes water flow / delivery, Total Head, Power consumption, Pump efficiency
- 6.3.1.3. ECM identification - pumping system efficiency, throttling, distribution network, leakages, spillages, under capacity utilization, variable flow system opportunity, better options - water flow / head / power / overall efficiency etc. Header synchronization / separations
- Based on Water audit study and analyses of the pumping system, a number of potential water &

energy saving projects may be identified. These may be classified into three categories:

- ❖ No / Low Cost - High Return / Savings with no / low cost involve;
- ❖ Medium Cost - Medium Return;
- ❖ High Cost - High Return

6.3.1.4. Motor Load Survey - conducting & reviewing % load survey of all the major load connected motors (5 kW & above), explore ECM in motor(s)

6.3.1.5. ETP / WTP / STP Systems - Review of the systems in terms of water flow, treated water generation, water re-use, power optimization

6.3.2. Water Testing - this will be a separate study altogether and broadly covers the testing of parameters of the water like TDS / Hardness / Ph value / BOD / COD / Oil & Grease / TSS / Other required as special

6.3.2.1. Water samples will be collected from respective sources i.e. treatment plants (treated water), supply from AKVN, Domestic & other water samples suggested from client

6.3.2.2. Off site laboratory tests will be conducted to know the parameters values & a report will be provided keeping the actual values & a comparative with standard parameters

6.3.3. Thermography Study - this will be again a separate study altogether and covers thermal screening of the different electrical panels & DB's

6.3.3.1. Thermal Imager instrument will be made available at site and thermal images of the panels / DB's / MCB's will be taken with the help of Thermal Imager

- A comprehensive report will be prepared which will contain all the health conditions of the panels / DB's
- While carrying out study, if any panel / DB is getting abnormal temperatures (thermal images), same will be informed to concerned team member so that immediate rectifications can be done

6.4. Water treatment plants Audit must be conducted as per rules laid in detailed water audit procedures mandated by Gazette Notification issued by Govt. Authorities. The audit should also be in line to various orders released by State Ground Water Department (SGWD) Madhya Pradesh from time to time. If any discrepancies are noted among rules set by CGWA and State Ground Water Department (SGWD), then the orders released by State will hold the merit while formulating the report.

- 6.5. The Audit would involve discussions with Client's Nodal Officer/EIC to arrive at measurement points, Single Line Diagram of Water Circuit of entire plant listing all incoming and outgoing stream, Water Balance, Test reports of Water and Effluents samples from NABL Lab, Replenishment activities undertaken for Ground Water Level Enhancement along with Hydrography Data of the location, Water Conservation measures along with Cost Analysis of the recommendations, Compliance Table as per CGWA/SGWD.
- 6.6. Audit report should be inclusive of:**
- 6.6.1. Documenting water supply and storage facilities
 - 6.6.2. Documenting water and wastewater treatment facilities
 - 6.6.3. Documenting consumption, losses and excess use
 - 6.6.4. Water balance sheet preparation
 - 6.6.5. Documenting water and wastewater treatment cost of operation
- 6.7. All Instruments should be calibrated and selected consultants / consulting companies need to submit the calibration certificate.
- 6.8. The consultants / consulting companies would be willing to undertake water treatment plant audit in the above mentioned sectors but not limited to same.
- 7. लेखापरीक्षा पूर्ण करने की अनुसूची/ Schedule for Completion of Audit**
- 7.1. NATRAX से कार्य आदेश जारी होने के 10 दिनों के भीतर क्षेत्र अध्ययन शुरू हो जाना चाहिए।/ The Field study should commence within 10 days of issue of Work Order from NATRAX.
 - 7.2. मसौदा रिपोर्ट क्षेत्र अध्ययन पूरा होने के 15 दिनों के भीतर NATRAX के प्रभारी अधिकारी/ईआईसी को प्रस्तुत की जानी चाहिए, जो अध्ययन का नेतृत्व करेंगे।/ The Draft Report should be submitted to NATRAX Officer In charge/EIC who would be leading the study, within 15 days after completion of Field study.
- 8. अन्य नियम एवं शर्तें / Other Terms & Conditions**
- 8.1. नैट्रैक्स, टीम को प्रारंभिक बैठक और दिन-प्रतिदिन के लक्ष्यों के साथ कार्यान्वयन की योजना बनाने में सहायता करेगा।/ NATRAX would facilitate the Team with initial meeting and plan of execution with day-to-day milestones.
 - 8.2. टीम को कार्य के दौरान सख्त आचरण मानदंडों और व्यावसायिकता का पालन करना चाहिए और ऑडिट के दौरान किसी भी बिंदु पर, NATRAX कार्य नैतिकता के संबंध में किसी भी तरह की नरमी बर्दाश्त नहीं करेगा।/ The Team should follow strict behaviour norms and professionalism during engagement and



RFP Document for Water treatment Plant Audit

under no point during the Audit, NATRAX would tolerate any leniency with regards to working ethics.

- 8.3. एकत्र किया गया सारा डेटा NATRAX की संपत्ति होगा और किसी भी परिस्थिति में परामर्शदाता/परामर्शदाता कंपनियों को NATRAX के लिए ड्राफ्ट रिपोर्ट बनाने के अलावा पूर्व अनुमोदन के बिना इसका उपयोग नहीं करना चाहिए।/ All data collected would be property of NATRAX and under no circumstances should the consultant / consulting companies use it without prior approval apart from making Draft Reports for NATRAX.
 - 8.4. परामर्शदाताओं/परामर्शदाता कम्पनियों को सभी शुल्कों (यात्रा शुल्क और आवास एवं भोजन शुल्क, कर आदि सहित) को शामिल करते हुए उद्धरण देना होगा।/ The Consultants / Consulting Companies have to quote inclusive of all charges (Including Travel Charges and Boarding & Lodging Charges, Taxes etc).
 - 8.5. **भुगतान:/ Payment:** भुगतान तीन किस्तों में किया जाएगा।/ the payment shall be paid in three instalments viz
 - 8.5.1. 30% (कुल अनुबंध मूल्य का) क्षेत्र अध्ययन के बाद ड्राफ्ट ऑडिट रिपोर्ट प्रस्तुत करने की तारीख से 7 दिनों के भीतर जारी किया जाएगा/ 30% (of total contract value) shall be released within 7 days from the date of submission of draft audit report after field study.
 - 8.5.2. 50% (कुल अनुबंध मूल्य का) NATRAX द्वारा स्वीकृति के बाद अंतिम ऑडिट रिपोर्ट प्रस्तुत करने की तारीख से 7 दिनों के भीतर जारी किया जाएगा।/ 50% (of total contract value) shall be released within 7 days from the date of submission of final audit report after acceptance by NATRAX.
 - 8.5.3. शेष राशि का भुगतान NATRAX द्वारा अंतिम ऑडिट रिपोर्ट की स्वीकृति की तारीख से 3 महीने के भीतर ऑडिट रिपोर्ट के पूर्ण अध्ययन और खामियों (यदि कोई हो) के सुधार के बाद किया जाएगा।/ Remaining amount shall be paid after complete study of audit report and rectifications of the lapses (if any) within 3 months from the date of acceptance of final audit report by NATRAX.
9. **अंतिम आउटपुट/डिलिवरेबल्स / Final Outputs/Deliverables:**
- 9.1. NATRAX के टेम्पलेट के अनुसार मसौदा रिपोर्ट जिसमें कार्य के दायरे के अंतर्गत सूचीबद्ध सभी बिंदु शामिल हैं / Draft report as per NATRAX's template containing all points listed under Scope of works.
 - 9.2. ऑडिट के दौरान NATRAX से एकत्रित दस्तावेजों की सभी हार्ड कॉपी/ All Hard Copies of documents collected during the Audit from NATRAX.
 - 9.3. NATRAX द्वारा स्वीकृति मिलने तक ड्राफ्ट रिपोर्ट के सभी संशोधन/अद्यतन/ All modifications / update of Draft report until acceptance by NATRAX.



नोट: किसी भी अन्य स्पष्टीकरण के लिए कृपया ऊपर सूचीबद्ध पत्राचार अधिकारी से संपर्क करें।
/NOTE: In case of any further clarifications feel free to contact the correspondence officer as listed above.

9.4. पम्प हाउसों में स्थापित उपकरणों की विस्तृत सूची संदर्भ हेतु संलग्न है।/ Detailed list of the equipments installed in pump houses is enclosed herewith for reference.



RFP Document for Water treatment Plant Audit

10. तकनीकी बोली के लिए जांच सूची (कंपनी के लेटर हेड में)/ CHECKLIST FOR TECHNICAL BID (In Company's Letter Head).

Sl. No.	Pre-Qualification & Technical Evaluation Criteria	Supporting Documents	Remarks
1	The Company should be registered in India under the Companies Act, 2013 or a partnership firm registered under the Indian Partnership Act 1932 or LLP registered under LLP Act 2008 with their registered office in India or Individual / Proprietary Firm registered with MSME.	(Copy of Certificate of Incorporation/ Registration / MoA / Udyog Aadhaar Registration Certificate as applicable)	
2	The Company should have successfully carried out at least Three Water Audit within India, or Five Energy Audit within India in any of the last three Financial Years starting 2019-20 (Note: Either Water Audit or Energy Audit is to be submitted).	(Completion Certificate/ Work Order/ Purchase Order or CA certified certificate)	
3	The Company should have Certified Energy Auditor from Bureau of Energy Efficiency / Certified Water Efficiency Professional (CWEPTM) from Association of Energy Engineers.	(List to be provided along with supporting certification)	
4	The Company should have at least one set of Calibrated Instruments consisting of Ultrasonic Flow Meter with accessories, Energy - Power Meter with accessories, Standard Pressure Gauge with suitable connectors, 5000 ml Beaker, Stop Watch.	(List of Instruments available, quantity, and respective Calibration Certificate to be provided)	
5	Methodology of Execution: Detailed methodology is to be provided stating the execution plan be used to accomplish the scope of work provided, understanding of CGWA / KGWA Norms, Structure of Report, Adherence to the Timeline, Team Strength & Qualification.	(Separate sheet detailing the parameters required)	
6	For Financial Bid File's Password Contact Person: Name & Mobile Number		

Date:-----

Location:-----

Seal:-----

Signature of Authorized Signatory

Name:-----



11. DECLARATION:

(To be executed on Bidder's letterhead)

I/We are acquainted with the content & requirements of this Tender No. NATRAX/-----
-, dated _____ and do hereby accept to furnish the same in compliance with all
terms & conditions. I/we have not tampered with/modified the tender in any manner and
breach of any such will result in rejection of the Tender and/or prosecution.

I / We hereby declare that the firm/company has not been blacklisted or debarred in the past by
any other Government organization from taking part in Government tenders.

In case the above information is found false or in case of breach of any of the terms and
conditions at any stage of the Tender or Contract, I/We are fully aware that the Tender/
Contract will be rejected/cancelled by NATRAX and Payments (for completed/partially
completed), Retention, Bid Security (EMD), Performance Security, etc., shall be forfeited.

Signature of the Bidder: _____

Name and Designation: _____

Address: _____

Contact details: _____

Place:

Date:

Seal of the Bidder's Firm



12. वित्तीय बोली प्रारूप/ FINANCIAL BID FORMAT

(TO BE EXECUTIED ON THE BIDDER'S LETTER HEAD)

TENDER No. -----

Dated -----/-----/-----

NAME OF THE PROJECT: Request for Proposal (RFP) to Conduct Water treatment plant Audit at NATRAX Pithampur

Plant No.	Description of work	Qty.	Unit	Rate (In fig. (Rs.))	Total (Rs)
Plant 1	Water treatment plant Audit as per scope of work, terms & condition mentioned in this RFP document. (as per specification and scope of work)	1	Lump Sum Job (as per specification and scope of work)		
	GST @ 18%				
	Total				

Total Quoted Value: Rsin figure...../- (Rupeesquoted amount in words..... only)

I, the undersigned, offer to provide the Assignment/Job for [Conducting Water treatment plant Audit at NATRAX] in accordance with your Request for Proposal dated 19th Feb 2025, in Two Bid System (Technical Bid & Financial Bid). Our attached Financial Bid (in password protected .pdf file) is for the sum of [*Insert amount(s) in words and figures*]. This amount is inclusive of all Taxes, Duties, Deliverables, Boarding & Lodging etc all .

I hereby confirm that the financial Bid is unconditional, and we acknowledge that any condition attached to financial bid shall result in rejection of our financial bid. Our Financial Bid shall be binding upon us up to expiration of the validity period of the Proposal, i.e., till 4 months from the date of opening of technical bid. I understand that you are not bound to accept any Proposal you receive.

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory: _____

Address: _____

Name of Agency: _____

Seal: _____

Annexure A

Equipments list of all pump house										
S. No.	Equipment name	Part code/bearing size	Belt and gusset/(m3/hr)/Head M	Quantity	Specifications	A/V/PF/Hz	RPM	Water transfer zone	Maintenance of equipments	Remarks
1	Xylem - 3 phase induction motor	P0000189IE2/(6312 - both)	1510 4BC/250m3/hr/40m	4 nos	37kW/50HP	62.8/415±10%/0.89/50±5%	2960	For shower test		
2	A. Xylem - 3 phase induction motor B. Lowara- xylem pump	53008VG00IE2/(6206-ZZ - both) Part code- 1016L125EIE2	5-14 m3/hr/121-61m	3 nos	4kW/5.4HP	7.2/415±10%/0.9/50±5%	2906	For water wade,salted and splash		
3	Xylem - 3 phase induction motor	M000120IE2/(6309-ZZ/6209)	1532 1.5BC/40m3/hr/70m	2 nos	15kW/20HP	26.4/415±10%/0.88/50±5%	2940	For BST track	Required	
4	Xylem - 3 phase induction motor	M000118IE2/(6308ZZ/6208ZZ)	1532 1.5AC/50m3/hr/30m	3 nos	7.5kW/10HP	13.3/415±10%/0.89/50±5%	2925	For DMF and Softening process		
5	A. CE - 3 phase induction motor B. Everest pressure and vacuum system	5.50KNE4 IE2/(6308ZZ/6208ZZ) M5075/ Blower oil- EP90 (Castrol HYPOY)	Blower Belt size - CONTIV SPA 1180 Ld 04062018 8 S(continental) - Double belt pulley/200 m3/hr/4000 kg/cm2	2 nos	5.50kW/7.5HP	10.2/415±10%/0.88/50±5%	Moter - 1450 Blower - 1270	For airation in collection tank		
6	Lowara CE- 3 phase motor (M80BG/311 PE)	104491030 IE3	6-24 m3/hr/5.9-12.7m	2 nos	1.08kW/1.5HP	2.40/415±10%/0.78/50±5%	2900	For sludge transfer to tank		
7	CE - 3 phase induction motor	0.37KEG4FLG IE2/(6003ZZ - both)	-	2 nos	0.37kW/0.50HP	1.09*/415±10%/0.65/50±5 %	1400	For agitator of poly and hypo tank		
8	Melton-roy dosing pump (Diap. size - 1.8 Sq.inch)	Model: V-12/Sr.No : 5518	Max. output - 6.0 LPH	4 nos	Max.Pr. - 3.5 kg/sq.cm	50 Hz		For chemical dosing poly and hypo		
9	CE - 3 phase induction motor	1.10KEG4FLG IE2/(6205ZZ-C3,6203ZZ) Alum agitator gear box oil no. - EP320 for 1nos	-	2 nos	1.10kW/1.50HP	2.41/415±10%/0.75/50±5%	1400	For agitator of Lime and alum tank		
10	Bharat bijlee - 3 Ph.Sq.Cage Ind. Motor Melton-roy dosing pump (Diap. size - 6 Sq.inch, 3 Sq.inch - 2nos - poly)	CM/L 7800028518 IE2/(6202-ZZ-C3 - 2 nos) Model: M-14/Dosing pump oil no. - SAE 140 oil 25/ replace in every 3 moths for 6 nos	Min-Max. Capacity : 10-100 LPH	6 nos	0.37kW/0.50HP	1.03/415±10%/0.71/50±5%	1370	For Dosing of Lime,Alum,Poly		
11	CE - 3 phase induction motor	0.37KEG4FLG IE2/(6003ZZ - both)	-	1 nos	0.37kW/0.50HP	1.09*/415±10%/0.65/50±5 %	1400	For agitator of poly tank of CNF		
12	CE - 3 phase induction motor	1.10KNE4 IE2/(6205ZZ - both)	Belt size - (POLY-F) PLUS SP% 1320 (Single belt pulley)	2 nos	1.10kW/1.50HP	2.61/415±10%/0.72/50±5%	1415	For sludge transfer to CNF		
13	CE - 3 phase induction motor	5.50KNE4 IE2/CNF-1 motor-(6308ZZ/6208ZZ) CNF-2 motor- (6208ZZC3/6305ZZC3)	Belt size - Eco drive plus B 2180 B 84 (Three belt pulley)	2 nos	5.50kW/7.50HP	10.2/415±10%/0.86/50±5%	1450	For CNF m/c operation		
14	DMF			2 nos				To remove turbidity of water.	Refilling done by dated - 08.10.2023	
15	Softener			2 nos				To reduce water hardness	Refilling done by dated - 08.10.2023	
16	CE - 3 phase induction motor	1.50KEG4FLG IE2/(6205ZZ/6203ZZ)	-	1 nos	1.50kW/2.0HP	3.60*/415±10%/0.70/50±5 %	1435	For salt mixing brine tank		
17	ELGI - Compressor ELGI - 3 phase induction motor	Fab No : DSBLO61075, Model : SS01LB-10 CM/L-6790388 IE2/(6204ZZ/6203ZZ) Compressor oil - EP320, DISP. VOL-118 LPM	Tank Capacity - 45 ltr Belt size - Mitsubishi 13X889 L1 A-35	1 nos	0.75kW/1.0HP Wr. Pr. - 10 kgf/cm2 Test pr. -19.8 kgf/cm2	2.2/415±10%/50±5%	Com. RPM - 1200 Motor - 1360	For air compressor		
18	CE - 3 phase induction motor	2.20KNE4FLG IE2/(6206ZZ/6205ZZ) Foccl. tank agitator gear box oil no. - EP320 for 1nos	-	2 nos	2.20kW/3.0HP	4.84*/415±10%/0.75/50±5 %	1445	For agitator of CT+FT tank of CNF		
19	Lowara CE- 3 ~ phase motor	Pump unit : DN120/A, Code : 107550080	50m3/hr/20,1m	2 nos	1.09kW/1.5HP	2.34/380-415/50±5%	-	For sump water transfer to collection tank		
20	Steady - Xylem	1315 181 1876260/1315 181 0280 261		3 nos	4.4 kW/5.9HP					
21	CG (crompton greaves) - centrifugal monoset pump	Pump no. - 097/REF. no.- 52753	1.91 lps/19.5m	1 nos	0.75kW/1.0HP	5.9/415	2870	For casual works under pump house		
22	A. Xylem - 3 phase induction motor B. Lowara- xylem pump	53017VB00IE2/(6208-ZZ/6208-ZZ) Part code- 101570071IE2	(15-48 m3/hr)/61m	4 nos	7.5kW/10HP	13.3/415±10%/0.89/50±5%	2925/2900	For Irrigation on track HFA, ceramic, basalt, wet grid and polish concrite		
23	Pentair - wellmate	WM0450 CPVC DRAIN	Pressure(psig/kPa/bar)- 24/165/1.65 work. pre. - 125psig/860kPa/8.6bar	1 nos	Volume- 1197 gal/ 453 liter	26.4/415±10%/0.88/50±5%	2940	Supporting member for irrigation system		
24	Lowara CE- 3 ~ phase motor	Pump unit : DN120/A Code: 107550080	50m3/hr/20,1m	2 nos	1.09kW/1.5HP	2.34/380-415/50±5%	-	For sump water transfer to collection tank		
25	KSB sewage pump			3 nos	17kW/22.8HP			For collected water transfer to T5		
26	Borewell			2 nos				For ground water collection		
27	Sprinkler system	Rainbirds popup sprinkler - 3500 series		313	4" - 3504			for water spreading on surface		
28	Xylem - 3 phase induction motor	M000119IE2/(6309-ZZ/6209-ZZ)	70 m3/hr/30 m	4 nos	11kW/15HP	19.5/415±10%/0.88/50±5%	2935	Supply water for Irrigation on track		
29	Steady - Xylem	1315 181 1876260/1315 181 0280 261		3 nos	4.4 kW/5.9HP			Raw water supply from T11 to T5 - centralise pump house		
30	Borewell			1 nos				for ground water collection		
31	Lowara CE- 3 ~ phase motor	Pump unit : DN120/A, Code : 107550080	50m3/hr/20,1m	2 nos	1.09kW/1.5HP	2.34/380-415/50±5%	-	For sump water transfer to collection tank		
32	Ground force			2 nos	4.4 kW/5.9HP		-	Water transfer for sprinkler system from existing tank at T5- track		
33	Borewell			1 nos				From ground water collection		
34	Sprinkler system at salted test			Approx - 100				For making rain simulator		
35	Sprinkler system at Shower test			Approx - 500				For making heavy rain simulator		