



Invitation to Request for Qualification ("RFQ")

Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in Maharashtra and Other States.

02nd July, 2025

MAHATMA PHULE RENEWABLE ENERGY & INFRASTRUCTURE TECHNOLOGY LTD. (MAHAPREIT),
A Govt. of Maharashtra Undertaking

Pinnacle Corporate Park B-501, Next to Trade Center, Bandra Kurla Complex, Bandra East, Mumbai 400051.

<https://mahapreit.in>

MAHATMA PHULE RENEWABLE ENERGY & INFRASTRUCTURE TECHNOLOGY LTD. (MAHAPREIT)**Index**

Sr. No.	Section No.	Particulars	Page No.	
			From	To
1	Section – 1	Detailed Invitation to Offer Notice	3	5
2	Section – 2	General Information	6	8
3	Section – 3	Instructions to Bidders	9	21
4	Section – 4	Scope Of Work	22	25
5	Section – 5	Empanelment Agreement Framework	26	26
6	Section – 6	Annexure	27	42

SECTION-1
DETAILED INVITATION TO OFFER NOTICE

MAHATMA PHULE RENEWABLE ENERGY AND INFRASTRUCTURE TECHNOLOGY LTD.

RFQ No.: - MAHAPREIT/ETAP/RFQ – 11/2025

Online electronic bid for below-mentioned work is invited by the Executive Director (Operations) on behalf of MAHAPREIT, Mumbai from the prospective, reputed, experienced and technically sound parties **for Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in Maharashtra and Other States.**

The time schedule for various bidding phases is given in the detailed e- RFQ notice, which is also available on the website as part of the bid document.

Sr. No	Name of work	Estimated Cost	RFQ Document Cost (Rs.)	EMD Amount (Rs)	Period of Empanelment
1	Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in Maharashtra and Other States.	-----	Rs. 1000/ + 18% GST	Rs. 1,00,000/-	2 years (From the date of issuing of LOA)

The RFQ document is available on the websites <https://mahatenders.gov.in> and www.mahapreit.in from 02/07/2025 to 16/07/2025 online. RFQ shall be accepted on website <https://mahatenders.gov.in> only.

All Bidders are hereby cautioned that the e-bid containing any deviation from the contractual terms and conditions, and other requirements and conditional e-RFQ will be rejected.

1. Validity Period: The bid of the Bidder shall remain valid for 120 days from the date of opening of the RFQ.
2. The Bidders participating for the first time in e-RFQ will have to procure Digital Signature Certificate as well as should compulsory get themselves enrolled on e-tendering portal <https://mahatenders.gov.in>
3. If any assistance is required regarding e-RFQ (upload and download), please contact CGM (IT) of MAHAPREIT at cgm.it@mahapreit.in
4. In view of the conflict of Interest, the Agencies having relation in whatsoever manner with any Key Resource Person/Key Resource Institution or the Member of MAHAPREIT Task Force shall be barred from applying to the said RFQ.
5. All requisite information required for the submission of RFQ is available on the above website.
6. All rights are reserved by the Competent Authority to reject any or all RFQ in full or in part of without assigning any reason or accept the bid beyond the validity period.
7. To search MAHAPREIT tenders Select Organisation as "Social Justice and Special Assistance" and Department as "MAHATMA PHULE RENEWABLE ENERGY AND INFRASTRUCTURE TECHNOLOGY".
8. For new Bidders kindly go through the Bidders Manual Kit <https://mahatenders.gov.in/nicgep/app?page=BiddersManualKit&service=page> particularly **Registration of Bidders** document.
9. For FAQ's pls go through

10. Bidders who are using State Bank Multiple Option Payment System ("SB MOPS") other banks (**Other than SBI Bank**) Internet Banking are requested to make online payment **four days in advance**.
11. From 15th August 2024 application fees of **Rs 500** per bid shall be charged from the Bidders by Government of Maharashtra.
12. For **online Payment related issues**, kindly send an email with Bank Reference Number to this email ID **merchant@sbi.co.in** for clarifications.
13. For any technical related queries please call at **24 x 7 Help Desk Numbers** as below 0120-4001 005, 0120- 4493395. **International Bidders** are requested to prefix 91 as the country code

E-Mail Support

A) For any Issues or Clarifications relating to the published tenders, Bidders are requested to contact the respective Tender Inviting Authority

Technical - support-eproc@nic.in

Time Schedule for RFQ

S. N	Particulars	Details
1	RFQ No.	MAHAPREIT/ETAP/RFQ – 11/2025
2	Name of Work	Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in Maharashtra and Other States.
3	Cost of RFQ Document (Non-Refundable)	Rs. 1000/- (+ 18% GST)
4	Earnest Money Deposit EMD	Rs. 1,00,000/- (In words- Rs. One Lakh only). (Payment through Online Mode Only through payment gateway only) (MSME Bidders shall be exempted from payment of EMD fees, provided the MSMEs submit valid MSME registration certificate)
5	Start Date for downloading the RFQ	02/07/2025
6	Last date of Submission of bids in response to RFQ	16/07/2025 at 15.00 Hrs
7	Time and date of Opening of RFQ	17/07/2025 at 16.00 Hrs
8	Pre-bid meeting	09/07/2025 on 03: 00 PM
9	Submission of Pre-bid queries	08/07/2025 by 03: 00 PM
8	Contact No. in case of any queries.	Contact No. 02269214431/426
9	Email Id for clarification of RFQ	cgm.etap@mahapreit.in

SECTION-2
General Information

2.1. DEFINITIONS:

2.1.1 MAHAPREIT- MAHAPREIT shall mean Mahatma Phule Renewable Energy and Infrastructure Technology Ltd. (a Subsidiary Company of MPBCDC Ltd.). The Headquarter of MAHAPREIT is Mumbai.

2.1.2 REGISTERED ADDRESS FOR COMMUNICATION

Mahatma Phule Renewable Energy and Infrastructure Technology Ltd (MAHAPREIT),
(A Subsidiary Company of MPBCDC Ltd)
B-501 Pinnacle Corporate Park, Next to Trade Center,
Bandra Kurla Complex, Bandra East, Mumbai 400051.

2.1.3 WEBSITE:

Website means official web sites for e-tendering having following web address <https://mahatenders.gov.in> and <https://mahapreit.in/>

2.1.4 EXECUTIVE DIRECTOR

Executive Director shall mean Executive Director of MAHAPREIT.

2.1.5 COMPETENT AUTHORITY:

Competent Authority shall mean the Managing Director of MAHAPREIT.

2.1.6 CONTRACTOR:

Contractor shall mean the firm or company or agency who enters into contract with MAHAPREIT and shall include their executors, administrators, successors and submitted assignees.

2.1.7 WORK:

Work shall mean the work to be executed in accordance with the Scope of Work of Contract.

2.2 RFQ DATA AT A GLANCE:

Sr. No	Particular	Details
2.2.1	Name of work	Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in Maharashtra and Other States.
2.2.2	Estimated Cost	Not applicable.
2.2.3	RFQ Document Cost Rs	Rs. 1000/- plus 18% GST.
2.2.4	Earnest money Deposit (EMD)	Rs. 1,00,000/- Rs. One Lakh only. (Online Mode Only through payment gateway) (MSMEs shall be exempted from payment of EMD fees provided, the MSMEs submit valid MSME registration certificate)
2.2.5	Empanelment Fees	Rs. 50,000/- + GST (to be paid by qualified successful Bidders prior to issue of Letter of Award ("LoA") by MAHAPREIT

2.2.6	Mode of payment (EMD)	RFQ document cost and EMD amount shall be paid through E-payment gateway.
2.2.7	Security Deposit	At the time of work allocation.
2.2.8	Mode of submission of tender	Bid should be submitted on-line on https://mahatenders.gov.in and https://mahapreit.in/ only.
2.2.9	Any addendum / corrigendum /cancellation	Any addendum/ corrigendum/ cancellation of above RFQ will be published on the websites https://mahatenders.gov.in and https://mahapreit.in/
2.2.10	Bid Documents	Bid Documents consisting of, information and eligibility criteria, plans, specification and schedule of quantities of the works are available on web site https://mahatenders.gov.in and https://mahapreit.in/ and the set of terms and conditions of contract and other necessary documents can be seen on the above websites till last date of sale and receipt of RFQ. Interested Bidders may obtain further information at the website https://mahatenders.gov.in and https://mahapreit.in/
2.2.11	Bid acceptance period	The bid for the work shall remain open for acceptance for a period of 120 days from the date of opening of technical bid. If any Bidder withdraws his bid/ offer before the said period or makes any modification in the terms and condition of the bid, the EMD at the time of submission of tender shall stand forfeited.
2.2.12	Other Details	Other details including details of Portal Registration, Submission of bid, Resubmission and withdrawal of bid can be seen in the bidding documents which is available on the websites https://mahatenders.gov.in and https://mahapreit.in/
2.2.13	Documents to be uploaded	<p>The PDF copies of original documents should be uploaded on above mentioned website and should be produced for the verification on demand after opening of the RFQ bid.</p> <p>The Bidders who have participated in the on-line bidding can witness opening of the bid from any system by logging on to the portal, https://mahatenders.gov.in away from the bid opening place. The bid can only be opened by the pre-designated officials only after the opening time mentioned in the bid. In the event of the specified date of bid opening being declared a holiday the bid will be opened at the appointed time and transaction in the next working day.</p>

2.2.14	RFQ Acceptance Authority	Executive Director (Operations), MAHAPREIT	
2.2.15	MAHAPREIT bank details	Bank Name	Bank of Maharashtra
		Account Name	MAHATMA PHULE RENEWABLE ENERGY AND INFRA STRUCTURE TECHNOLOGY
		Account No	60436723381
		IFSC:	MAHB0000164
		Branch Code:	00164
		Branch Address	CENTRAL ADMN. BLDG, M.H.B. KALANAGAR, BANDRA (E), MUMBAI 400051

The detailed step by step procedure for uploading the Main Documents, required RFQ papers, Payment of RFQ fee, and E.M.D through E payment Gateway is available on the e-Tendering website <https://mahatenders.gov.in> and <https://mahapreit.in>

Bidders have to follow the instructions given on the above websites for filling up Main Tender Forms Online and submission thereof.

SECTION - 3 INSTRUCTIONS TO BIDDERS For Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in Maharashtra and Other States.

3.1 BACKGROUND & OBJECTIVES -

Mahatma Phule Renewable Energy and Infrastructure Technology Ltd (MAHAPREIT) - MAHAPREIT was set up in April 2021 to venture into Renewable Energy ("RE") and Green technology areas and infrastructure projects as fully owned subsidiary of MPBCDC and the Government of Maharashtra has allowed to take up RE and Green energy , Infrastructure projects on Govt to Govt basis (G2G basis) vide GR dated 10th July 2023. Government of Maharashtra has set up the "Mahatma Phule Backward Classes Development Corporation on July 10, 1978 under the Companies Act,1956 with the main objective of accelerating the economic upliftment of the economically weaker families of SC communities in the State of Maharashtra. The ratio of shareholding between State and Central Government is 51:49 % respectively having authorized share capital of Rs. 1000 Crore.

MAHAPREIT having objectives to establish and carry-on business of Generating, Trading, Operating, Leasing and Renting Renewable Power Projects, mainly but not limited to Solar Power Projects including Solar Parks along with sub-stations and transmission lines on ownership and/or build, own and transfer basis. Further objects are to establish and/or carry on business in relation to Decarbonization and energy efficiency, battery storage solutions, alternative fuel cell technology and climate change issues in accordance with Ministry of New and Renewable Energy ("MNRE") schemes/policies or Ministry of Power or any such department of Government of India ("GoI") and its PSU/companies and Government of Maharashtra ("GoM") Energy dept's Renewable Energy Policy as amended from time to time and all incidental and allied activities required for such business.

NAVYUG SCHEME

MAHAPREIT implements "NAVYUG SCHEME" to get the integrated, inclusive and comprehensive effects of all the input supports of MAHAPREIT company to the target beneficiaries of MPBCDC Limited as defined from time to time by Govt of Maharashtra.

MAHAPREIT undertakes such projects under different verticals like –

- 1) Renewable Energy with Solar Power, hybrid and RE centric Projects,
- 2) ESCO model (Energy Saving Company) Energy saving Scheme for Urban Local Bodies ("ULB") & Government Of Maharashtra agencies.
- 3) Agro Processing Value Chain and Biofuels,
- 4) Affordable Housing, Affordable Rental Housing Scheme ("ARHS") and schemes under MoUHA, GoI under EWS and PMAY,
- 5) Highway and Infrastructure Projects,
- 6) Environment and Climate Change,
- 7) New and Emerging Technology Projects especially in Green Hydrogen, Futuristic Energy Integration Projects,
- 8) Software Technology and Application-Based Services and CSR Projects.

- MAHAPREIT is working in different sectors in Maharashtra like large-scale Renewable Energy projects especially solar PV, Hybrid with BESS, floating solar, EV charging stations, energy management and energy auditing for buildings, industries, carbon capture, affordable housing etc.
- As urbanization and industrialization continue to grow in Maharashtra, the demand for energy is rising exponentially. Most electricity is still generated through thermal means, resulting in significant greenhouse gas emissions that contribute to global warming and climate change. Fossil fuels like coal, oil, and natural gas are depleting, and their use is unsustainable for long-term development. The Energy Conservation Act of 2001 and various government initiatives aim to reduce energy consumption and promote sustainable practices. Studies by the Bureau of Energy Efficiency (“BEE”) suggest that substantial energy savings of up to 30% are achievable across multiple sectors.
- Wastewater Treatment systems in India are highly energy intensive. In many cities, energy consumption accounts for 40-60% of operating costs for water utilities. Major energy usage in wastewater treatment comes from aeration systems, which can account for 60-70% of total energy consumption. Outdated infrastructure and inefficient equipment in sewage treatment plants, waste energy. Retrofitting and replacing old equipment with newer, more efficient technology can significantly reduce energy consumption, greenhouse gas emissions, and operational costs.
- MAHAPREIT is focusing on energy-efficiency sewage treatment plants (“STPs”) across Maharashtra and other states. A proposed solution for reducing energy consumption in STPs involves the introduction of Energy-Efficient Turbo Blowers. MAHAPREIT aims to implement this technology on an ESCO basis across municipal corporations and ULBs, MIDCs, in Maharashtra and potentially other states, providing a sustainable and cost-effective solution to wastewater treatment and energy consumption.
- The purpose of this RFQ is to solicit proposals from qualified and experienced Agencies/Bidders to design, supply, install, and maintain energy-efficient turbo blowers for Sewage Treatment Plants (“STPs”) to achieve substantial energy savings. The Bidder shall guarantee a minimum energy savings as part of the project under a performance-based contract.
- The energy-efficient turbo blowers will replace or augment existing blower systems in the STPs, optimizing air supply for the aeration process, reducing energy consumption, and ensuring operational reliability not distributing the existing set up of Blowers. The contract will be implemented through an ESCO mechanism, wherein payments will be made based on the energy savings achieved, thereby minimizing upfront capital costs.
- Through this RFQ, MAHAPREIT seeks to invite competent agencies to submit their proposals for Design, Installation, commissioning and operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for STPs in Maharashtra and other states. STPs shall also mean and cover energy savings and energy efficiency improvement at CETPs or River restoration or Lake restoration.

At this stage, bids are invited for empanelment of the agencies. The financial offers will be called from empanelled agencies as and when the requirement of such service/work arises.

3.2 INFORMATION AND INSTRUCTIONS TO BIDDERS:

- 3.2.1** MAHAPREIT invites Online e-RFQ for Empanelment of Agencies for Design, Installation, Commissioning and Operating of Active Magnetic Bearing Energy-Efficient Turbo Blowers for STPs via ESCO Mechanism in Maharashtra and Other States.
- 3.2.2** The Bidders should download the Main e-RFQ Document from the websites:
<https://mahatenders.gov.in> and <https://mahapreit.in/>
- 3.2.3** The Online forms of master filter should be filled in completely and all questions should be answered. All information requested for in the enclosed forms should be furnished against the respective columns in the form. If any query is not relevant, it should be stated as "Not Applicable". Only 'dash' reply will be treated as incomplete information. All Bidders are cautioned that incomplete information in the application or any change(s) made in the prescribed forms will render application to be treated as nonresponsive.
- 3.2.4** The Main e-RFQ document shall be typed on Bidder's letterhead and the signed scanned copy shall be uploaded.
- 3.2.5** Any overwriting or correction shall be attested. All pages of the Main e-RFQ document shall be numbered and should be submitted as a package with a signed letter of transmittal.
- 3.2.6** All the information must be filled in English language only.
- 3.2.7** Information and certificate(s) furnished along with the application form (the respective application that vouches to the suitability, technical know-how and capability of the Bidders) should be signed by the bidders.
- 3.2.8** The Bidders are encouraged to attach any additional information, (PDF copies of similar work orders which were already carried out, regarding his capabilities). No further information will be entertained after submission of Main RFQ document unless it is requested by **MAHAPREIT**.
- 3.2.9** The Main e-RFQ document in prescribed forms as required in this booklet duly completed and signed should be uploaded on web site along with all relevant documents. The documents submitted in connection with the pre- qualification shall be treated as confidential and will not be returned.
- 3.2.10** The cost incurred by Bidders in preparing this bid, in providing clarification or attending discussions, meetings, conferences in connection with this document, shall not be reimbursed by the MAHAPREIT under any circumstances.
- 3.2.11** Operating conditions Airflow required from Active Magnetic Turboblenders

Differential pressure required	As per duty Condition - 0.5 Kg/cm ² to 1 kg/cm ²
Type of Turboblender	Liquid Cooling
Maximum operating air inlet temperature	55°C
TurboBlenders operation - Airflow in m ³ /hr	Operating Range at Different Sites requiring Air flow as : 1500m ³ /hr to 3000 m ³ /hr, OR 1500m ³ /hr to 4500m ³ /hr, OR 3000m ³ /hr to 7500 m ³ /hr, OR 3000m ³ /hr to 15000 m ³ /hr
Average air temperature in India	27°C
Lowest air temperature	-10 °C
Relative humidity	65 % RH

3.3 METHOD OF APPLYING: -

- 3.3.1** If the application is made by a firm in partnership, it shall be digitally signed by all Partners of the firm giving their full Typewritten names and current addresses or by a partner holding valid power of attorney on behalf of the firm by signing the application, in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the partnership deed, and the current address of all the partners of the firm shall also accompany the application.

- 3.3.2 If the application is made by an LLP, it shall be digitally signed by a duly authorized person holding the power of attorney for signing the application, in which case a certified copy of the power of attorney shall accompany the application. Such an LLP may be required to furnish satisfactory evidence of its existence before the pre-qualification is awarded.
- 3.3.3 The application shall be signed to be legally binding on all partners.

3.4 REVISION OR AMENDMENT OF RFQ DOCUMENTS: -

- 3.4.1 All Rights are reserved to revise or amend the RFQ document released on website, prior to time specified in time schedule for main e-RFQ preparation. Any further revisions, amendments or time extensions shall be communicated to all be displayed on website: <https://mahatenders.gov.in> and <https://mahapreit.in/>
- 3.4.2 The amendment shall be part of the RFQ Documents and will be notified by publication in the MAHAPREIT website as well as 'mahatender website' and will be binding on the prospective Bidders.
- 3.4.3 All the intending Bidders are advised to keep a close watch on the website of MAHAPREIT and mahatender in their own interest.

3.5 EARNEST MONEY DEPOSIT: -

All bidders shall pay their entire E.M.D. and payment shall be made through E- Payment gateway (uploading payment receipts). EMD Exemption is allowed to Bidder having valid MSME certificate.

3.6 REFUND OF EARNEST MONEY: -

After acceptance of the bid of successful Bidders, the E.M.D. of other bidders will normally be refunded within 28 days. The earnest money amount shall not carry any interest whatsoever.

3.7 EMPANELMENT FEES:

The successful bidder shall have to pay one time Rs. 50,000/- (Fifty thousand only) plus GST, non-refundable empanelment fees prior to the issue of Letter of Award (LoA) by MAHAPREIT for the period of two years.

3.8 MANNER OF SUBMISSION OF RFQ AND ITS ACCOMPANIMENTS:

- 3.8.1 The bidder must download the bid document from website, fill it completely and upload on website by scanning and digitally signing wherever necessary. Main RFQ Documents are to be prepared and submitted online Only.
- 3.8.2 The detailed step by step procedure for uploading the Main RFQ Documents, required RFQ papers, payment of RFQ fee and E.M.D through E payment Gateway is available on the e-Tendering website of Govt. of Maharashtra <https://mahatenders.gov.in> and <https://mahapreit.in/>. Bidders must follow the instructions given on the above web site for filling up Main RFQ Forms Online.
- 3.8.3 The Bidder shall submit the tender and documents online as per the E-Tendering procedure.

3.9 CONFLICT OF INTEREST: -

- 3.9.1** The selected Bidders should provide transparent, professional, objective, impartial service and hold MAHAPREIT's interest paramount with utmost integrity.
- 3.9.2** The selected Bidders shall not downstream or outsource any part of the scope of work from any agency or the advisors appointed by the MAHAPREIT or sublet the work assigned.
- 3.9.3** Non-disclosure of such an association will lead to termination of the Agency.
- 3.9.4** In view of the conflict of Interest, the professional agency/bidding firm having a relation in a Member of the MAHAPREIT shall be barred from applying to the said RFQ.

3.10 QUALIFYING CONDITIONS: -

For the empanelment with MAHAPREIT, the prospective Bidders should fulfil the following eligibility criteria: -

- 3.10.1** The Bidder, must be registered and incorporated in India, possessing a valid legal entity status, & required to submit ASME OEM certificate for the blower technology.
- 3.10.2** Bidder should have office in India and should establish office in preferably in Mumbai or in any city of Maharashtra within 3 months from the date of empanelment.
- 3.10.3** The Bidder shall have valid GST registration.
- 3.10.4** The Bidder shall have average annual turnover of Rs 25 Cr per annum during preceding 3 years (FY 2021-21, FY 2022-23, FY 2023-24). Chartered Accountant's ("CA") Certificate shall be attached.
- 3.10.5** The Bidder shall have positive Net-worth during the last FY 2023-24. CA Certificate shall be attached.
- 3.10.6** The Bidder or associated OEM should have completed at least 1 projects (national/international) in providing Magnetic Turbo blower Technology in Sewage Water Treatment Plants (STPs) in India or internationally. Additionally, preference will be given who have achieved minimum 30% energy saving duly Certified by concerned authorities.
- 3.10.7** The Bidder should be Authorised Distributor of the Original Equipment Manufacturer ("OEM") Technology provider of Magnetic Turbo blowers or should have tie up as Authorised Dealer with Authorised Distributor of the OEM Technology provider of Magnetic Turbo blowers. A supporting document shall be submitted by Bidder from the Authorised Distributor along with the bid document. OEM Authorisation letter to the Authorised distributor shall also be submitted along with the bid document as per format attached in Annex.
- 3.10.8** Bidders must provide proof of at least 3 years of commercial deployment of Active Magnetic Bearing ("AMB") Turbo Blower technology by OEM in STPs.
- 3.10.9** Bidders should employ at least Four qualified engineers (B.E./B.Tech in Mechanical/Electrical/Computer Science/Electronics and Telecommunication) with experience in software / energy efficiency field. Joint ventures or consortiums are not allowed.
- 3.10.10** The Bidder should not be black listed by any Central or State Government or Public sector undertaking in India.
- 3.10.11** Bidder should have valid International Organization for Standardization ("ISO") certificate.
- 3.10.12** Bidder to provide source and country of origin for the supply of Active Magnetic Turbo Blower.
- 3.10.13** Bidder to submit the detailed technical specifications for the Active Magnetic Turbo Blower duly signed by OEM.

- 3.10.14 Bidder to submit Declaration of Compliance of Order - From Active Magnetic Bearing Turboblower OEM - OEM to submit Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dt. 23 July, 2020 & 24 July, 2020 on Restrictions under Rule 1.44 (xi) of the General Financial Rules (GFRs), 2017 for Active Magnetic Turbo -Blowers, Active Magnetic Bearing, Magnetic Bearing Controller , Permanent Magnet Motor, PLC, Impeller and VFD, as per Annex.
- 3.10.15 Bidder must ensure that the blower monitoring system complies with the Government of India's cybersecurity guidelines under CERT-In. All data shall be stored within Indian servers and comply with relevant data privacy standards. Bidder to submit Purchase Order or Completion Certificate of Cloud based Data Software Operating in ULB/Government organisations.

3.11 OTHER CONDITIONS:

- 3.11.1** The interested Bidder has to submit the bid online only and no offline bid is accepted.
- 3.11.2** The interested agencies may also send their queries by email on the following email Id. cgm.etap@mahapreit.in. Queries received after the pre-bid meeting date shall not be considered for clarification.
- 3.11.3** The interested parties / agencies shall submit all the relevant papers online in soft copy with the bid. No hard copy submission is accepted.
- 3.11.4** Any disputes or differences that may arise out of or in connection with this RFQ, shall have exclusive jurisdiction of Mumbai Court.
- 3.11.5** The RFQ will be evaluated on suitability criteria mentioned above for the bid submitted by Bidders.
- 3.11.6** MAHAPREIT reserves the right to reject any or all bid in part or full without assigning any reasons.
- 3.11.7** Information relating to the examination, clarification, evaluation, and comparison of submitted bid and recommendations for the award of an empanelment shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award of empanelment to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of bid or award decisions may result in the rejection of his Bid.
- 3.11.8** Any effort by the Bidder to influence the Competent Authority in the Competent Authority's Bid evaluation, Bid comparison or award of empanelment or any decisions may result in the rejection of the Bidders 'Bid.
- 3.11.9 Allotment of work to more than one Bidder: -**
"MAHAPREIT reserves the right to allot the work to more than one Bidder. In this regard, the qualified agencies have to match the highest revenue sharing rate of the bidder. If they match the rates, then they shall be considered for allotment of work.
MAHAPREIT reserves the right to allot the work as per the policies / objectives of MAHAPREIT. MAHAPREIT reserves the right to withdraw the work and get it completed by any other agency at the risk and cost of the Bidder if performance of the agency is unsatisfactory. Further, the said agency may be de-listed for a period of one year for participating in any of the bids invited by MAHAPREIT. The Bidder must possess the ability to effectively manage stakeholders, performance contracts, meetings.
- 3.11.10 MAHAPREIT facilitation charges**
The Bidder will have to pay Energy Saving sharing to MAHAPREIT for which separate offer will be obtained from the successful empanelled Bidder on case to case basis.

3.12 GENERAL INSTRUCTIONS: -

3.12.1 General: -

The special conditions of contract are to be read in conjunction with General conditions of contract. If there are any variations or discrepancies or conflicting provision, the provisions in Special Conditions shall take precedence over the provisions in the General Conditions of contract.

3.12.2 Goods and Service Tax:

The RFQ rates are inclusive of all taxes, except Goods and Service Tax payable on value of the contract as applicable from time to time, however the Fee and Taxes shall be shown separately.

3.12.3 Conditional Offer:

Conditional offers will be summarily rejected. The RFQs which do not fulfil any of the conditions of the notified requirements laid down in this detailed RFQ, the general rules and directions for the guidance of the Bidders as mentioned in this RFQ are incomplete in any respect are likely to be rejected without assigning reasons thereof.

3.12.4 Validity of 120 days:

The offer shall remain valid for a period of 120 days (One Hundred Twenty) day from the date of the opening price quote unless extended. If the acceptance offer is not communicated within 120 days and if the offer is withdrawn by the MAHAPREIT the earnest money shall be refunded in full.

3.13 PREPARATION OF BID: -

3.13.1 Language of Bid: -

The bid prepared by the Bidder and all correspondence, drawing(s), document(s), certificate(s) etc. relating to the bid exchanged by Bidder and MAHAPREIT shall be written in English language only. In case a document, certificate, printed literature, etc. furnished by the Bidder in a language other than English, the same should be accompanied by an English translation duly authenticated by the Indian Chamber of Commerce, in which case, for the purpose of interpretation of the Bid, the English translation shall govern.

3.14 DETAILED INSTRUCTIONS & DOCUMENTS TO BE FURNISHED FOR BIDDING:

3.14.1 Scanned copies of the following documents:

3.14.1.1 Tender fee and EMD receipt.

3.14.1.2 Company registration certificate & PAN, TAN, GST Tax Registration.

3.14.1.3 Audited Balance sheet of last three years (CA certified)

3.14.1.4 Positive net worth certificates from Chartered Accountant.

3.14.2 Annexures:

3.14.2.1 Annexure-1: Checklist for technical bid.

3.14.2.2 Annexure-2: Covering letter

3.14.2.3 Annexure-3: Format of Power of Attorney for signing bid authorization letter.

3.14.2.4 Annexure 4: Information about the bidding firm.

3.14.2.5 Annexure-5: Annual Turnover.

3.14.2.6 Annexure-6: Assignment of similar nature of works.

- 3.14.2.7** Annexure-7: Contact Person for the RFQ.
- 3.14.2.8** Annexure-8: Declaration by the Bidders.
- 3.14.2.9** Annexure – 9 – OEM Authorization Letter
- 3.14.3.10** Annexure – 10 - Confirmation of meeting Technical Specifications OF ACTIVE MAGNETIC BLOWERS by OEM
- 3.14.3.11** Annexure 11 - Declaration of Compliance of Order (Public Procurement No.1, 2 & 3 dated 23 July, 2020 & 24 July, 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (“GFRs”), 2017
The Bidders have to submit all documents with an authorized Signature and company stamp. Documents without authorized signatures and stamps will not be accepted.

3.14.3 INSTRUCTIONS:

While submitting the Technical bid, the Bidders shall, in particular, ensure that:

- 3.14.3.1** A brief description of the firm and an outline of the relevant past experience on assignments and highlighting experiences on the implementation of Magnetic Turboblower Technology in STPs for Energy Saving in the format given in Form.
- 3.14.3.2** The composition of the team of personnel which the Bidders would propose to provide with the details of name of the key personnel, his/ her area of expertise, position and the tasks which would be assigned to each team member as well as previous experience.
- 3.14.3.3** The Bid without the cost of the RFQ document shall not be considered for evaluation & shall be outrightly rejected.
- 3.14.3.4** MAHAPREIT reserves the right to verify all statements, information and documents submitted by the Bidders in response to the RFQ. The limitation of MAHAPREIT to undertake such verification shall not relieve the Bidders of its obligations or liabilities here under nor will it affect any rights of MAHAPREIT there under. In case it is found during the evaluation or at any time before the Empanelment or after and during the period of subsistence thereof, that one or more of the eligibility conditions have not been met by the Bidders or the bidders has made material misrepresentation or has given any materially incorrect or false information, the bidders shall be disqualified forthwith if not yet empanelled as the auditor by a communication in writing by MAHAPREIT without MAHAPREIT being liable in any manner whatsoever to the Bidders, as the case may be.

3.15 DISQUALIFICATIONS:

MAHAPREIT may at its sole discretion and at any time during the evaluation of the bid, disqualify any Respondent if the Respondent has:

- 3.15.1** Submitted the bid documents after the response deadline;
- 3.15.2** Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements;
- 3.15.3** Submitted a bid that is not accompanied by required documentation or is non- responsive;
- 3.15.4** Failed to provide clarifications related thereto, when sought;
- 3.15.5** Submitted more than one bid;
- 3.15.6** Declared ineligible by the Government of India/State/UT Government for corrupt and fraudulent practices or blacklisted.

3.16 PRE-BID MEETING: -

- 3.16.1** The Bidder(s) or his designated representative are invited to attend an Online / Offline "Pre-Bid Meeting" which will be held at the address specified.
- 3.16.2** The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage and give hands-on e-tendering.
- 3.16.3** Text of the questions raised, and the responses given, together with any responses prepared after the meeting, will be uploaded on MAHAPREIT website / MAHAPREIT e-tendering website. Any modification of the Contents of Bidding Documents that may become necessary as a result of the Pre-Bid Meeting shall be made through the issue of a Corrigendum published on <https://mahatenders.gov.in> and <https://mahapreit.in/>.
- 3.16.4** Non-attendance of the Pre-Bid Meeting will not be a cause for disqualification of Bidder.

3.17 FORMAT AND SIGNING OF BID: -

- 3.17.1** The original and all copies of the Bid shall be typed or written in indelible ink [in the case of copies, photocopies are also acceptable] and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder (as per POA). The name and position held by each person signing must be typed or printed below the signature. All pages of the Bid except for unamendable printed literature where entry(s) or amendment(s) have been made shall be initialled by the person or persons signing the bid.
- 3.17.2** The Bid shall contain no alterations, omissions, or additions unless such corrections are initialled by the person or persons signing the bid.
- 3.17.3** In case of e-tendering, signed documents to be uploaded.

3.18 SUBMISSION OF BID: -

The Bid shall be submitted through e-tender mode in the manner specified elsewhere in RFQ document. No Manual/ Hard Copy (Original) Bid shall be acceptable.

3.19 DEADLINE FOR SUBMISSION OF BID: -

The Bid must be submitted through e-tender mode not later than the date and time specified in the tender documents/BID.

3.20 MODIFICATION AND WITHDRAWAL OF BID: -

The Bidder may withdraw or modify its Bid after Bid submission but before the due date and time for submission as per the tender document.

3.21 BID OPENING AND EVALUATION: -

3.21.1 Employer's right to accept any Bid and to Reject any or all Bid: -

MAHAPREIT reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bid, at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligations to inform the affected Bidder or Bidders of the ground for MAHAPREIT's action.

3.21.2 Bid Opening: -

3.22.2.1 Technical bid Opening: -

MAHAPREIT will open Bid, in the presence of Bidders' designated representatives who choose to attend, at date, time and location stipulated in the Bid Document.

Note: In the event of any unforeseen closure of work/holiday on any of the above days, the bid will be opened on the next working day without any further notice.

3.22 EMPANELMENT OF BIDDERS: -

Subject to all terms and conditions of RFQ / Tender documents & its amendments, MAHAPREIT will empanel the qualified successful Bidders.

3.23 PERIOD OF ENGAGEMENT:

The empanelment shall be valid for a period of 24 months (from the date of empanelment LoE issuing date) which may be extended by another one year by MAHAPREIT based on the requirement and at whole discretion of MAHAPREIT.

3.24 MUTUAL DISCUSSIONS: -

In the event of a dispute or difference of any kind whatsoever shall arise between the Parties in connection with or arising out of this Agreement or the breach, termination or validity hereof, the Parties shall endeavour to resolve such dispute in good faith in the first instance within 30 (thirty) days of the notice of such a dispute by mutual discussions between the Parties.

3.25 ARBITRATION: -

In the event of failure to resolve dispute/ differences related to Contract/Agreement and relating to interpretation of the clauses therein the parties are hereby agreed for its resolution / Adjudication etc. by referring it to the **Institutional Arbitration** established /recognized by the State Govt/Central Govt. and the dispute can be get resolved within the framework of the **Arbitration Act 2015** and in terms of rules and regulations of such institutional arbitration such as **Mumbai** center of Arbitration etc.

3.26 TERMINATION OF CONTRACT/EMPANELMENT AGREEMENT:

The MAHAPREIT may by giving not less than thirty (30) days written notice of termination to the Bidder, terminate this agreement upon the occurrence of any of the events specified in paragraph as below.

3.26.1 If the Bidder fails to remedy a failure in the performance of his obligations hereunder, as specified in a notice of suspension pursuant thereof, within thirty (30) days of receipt of such notice of suspension or within such further period as the MAHAPREIT may have subsequently approved in writing. Or

3.26.2 If the Bidder becomes insolvent or bankrupt or enter into any agreement with his creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary; or

3.26.3 If MAHAPREIT found that the Bidder has provided false, & wrong information while Bid submission; or

3.26.4 If the Bidder submits to the MAHAPREIT a statement which has an effect on the rights, obligations or interests of the MAHAPREIT and/or which the Bidder knows to be false; or

3.26.5 If as the result of a Force Majeure Event, the Bidder is unable to perform the Services for a period of not less than sixty (60) days, or

3.26.6 If MAHAPREIT found any defect/inadequacy/errors/inability/non-competency etc. in the Bidder in relation to the performance of the Services which are not in accordance to the Good Industry Practices or the provisions of this RFQ, or

3.26.7 If the MAHAPREIT, in its own discretion and for any reason whatsoever, decides to terminate this Agreement.

3.27 FINAL DECISION-MAKING AUTHORITY:

The Competent Authority of MAHAPREIT reserves the right to accept or reject any or all the RFQ in part or full for this RFQ without assigning any reasons thereof and his decision will be final.

3.28 FORCE MAJEURE:

3.28.1 Force Majeure Event : The Parties hereto agree that a Force Majeure Event shall mean any unforeseeable act or event that prevents the affected Party from performing its obligations under this Agreement or complying with any conditions required by the other Party under this RFQ and such act or even is beyond the reasonable control and not because of any fault of the affected Party and such Party has been unable to avoid such an act or event by the exercise of prudent foresight and due diligence.

Without prejudice to the foregoing, the Parties hereto agree that the occurrence of any of the events shall also be deemed to be a Force Majeure Event:

3.28.1.1 War and other hostilities whether war to be declared or not), invasion, act of foreign enemies, mobilization, requisition or embargo that directly impacts the provision of services by the Bidder under the Agreement.

3.28.1.2 Rebellion, revolution, insurrection, military or usurped power and civil war that directly impacts the provision of services by the Bidder under the Agreement.

3.28.1.3 Riot, civil commotion, terrorism, or disorder that directly impacts the provision of services by the Bidder under the Agreement.

3.28.1.4 Pestilence, epidemics, inclement weather causing floods or lightning or cyclone, typhoon, or earthquake and which directly impacts the provision of services by the Bidder under the Agreement.

3.28.2 The Parties hereto agree that the following events are explicitly excluded from and do not constitute a Force Majeure Event and is solely the responsibility of the affected Party.

3.28.2.1 Strikes, collective bargaining agreements of either Party resulting in delay in the provision of Services or stoppage of work; or

3.28.2.2 Labour disputes of any kind; or

3.28.2.3 Economic hardship; or

3.28.2.4 Any act, event, or occurrence listed above or asserted as a Force Majeure Event that results materially from the negligence or intentional acts of the affected Party.

3.28 FINANCIAL BID:

Bidders are not required to submit any financial bid for this RFQ. However, after due Empanelment of auditing agencies, MAHAPREIT will invite financial RFQ from only successful empanelled consultants/ agencies for each work as and when requirement arises.

3.29 POST BIDDING CORRESPONDENCE:

The Bidder should note that no correspondence shall be entertained or considered after the due date and time of submission of bid unless otherwise sought by MAHAPREIT.

3.30 NOTIFICATION OF AWARD OF EMPANELMENT/CONTRACT:

The notification of award of Empanelment shall be communicated to the successful Bidder by Letter of Award ("LOA") by email or Registered Post/Air mail or hand delivery. In case of issuance of LOA, the same shall be followed by letter of confirmation by Registered Post/ Air Mail. The Empanelment shall be considered as having come into force from the date of issue of Letter of Award by the MAHAPREIT. This date will be called the effective date of Empanelment.

3.31 SIGNING OF AGREEMENT of EMPANELMENT:

3.31.1 The successful Bidder shall have to furnish acceptance of Letter of Award within 10 calendar days from the date of issue of LOA. The successful Bidder shall have to sign a formal Empanelment agreement with the MAHAPREIT within 15 calendar days from the date of issue of LOA. Under certain circumstances, MAHAPREIT may give an extension of time for signing of contract.

3.31.2 All charges for preparing the contract documents including legal fee, stamp fee etc. shall be borne by the successful Bidder.

3.31.3 If the successful Bidder fails to sign a contract, the same shall constitute sufficient ground for the annulment of the award of Magnetic Turboblower Technology in STPs for Energy Savings on ESCO Basis work and also the forfeiture of the bid security.

3.32 CONFIDENTIALITY:

3.32.1 Information relating to the examination, clarification, evaluation and comparison of bid, and recommendations for the award of a Contract, shall not be disclosed to Bidder(s) or any other persons not officially concerned with such process.

3.32.2 All plans, design calculations, studies, data, maps, drawings and specifications prepared by the Bidder in connection with the services to be provided under the Agreement shall be the property of the MAHAPREIT. As and when required or upon termination of the contract, the aforesaid documents prepared specifically for the projects (including originals) shall be handed over to the MAHAPREIT.

3.32.3 The Bidder shall take all necessary steps to ensure confidential handling of all matters pertaining to plans, designs, drawings, specifications, method, and any other information developed or acquired by him from the MAHAPREIT under terms of the Contract.

3.33 INDEMNITY:

The Parties hereto agree that the Bidder shall indemnify and defend the MAHAPREIT and its representatives and employees, and hold the Owner, its representatives, employees harmless from:

- 3.33.1** Damages and losses caused by its negligent or intentional act or omission, or any damages and losses caused by the negligent act of any third party or sub-contractor or agency engaged by consultant.
- 3.33.2** Damages and losses resulting from the non-compliance with the obligations established hereunder.
- 3.33.3** Any environmental damage caused by it and/or its representatives or employees or employees.
- 3.33.4** Breach (either directly by it or through its representatives and/or employees) of any representation and warranty declared herein by it;
- 3.33.5** From all claims, actions, suits, proceedings, taxes, duties, levies, costs, expenses, damages and liabilities, including attorneys' fees, arising out of, connected with, or resulting from or arising in relation to this RFQ due to neglect, omission or intentional act of Energy Savings.

3.34 PERFORMANCE CONTRACT TERMS AND CONDITIONS:

- 3.34.1 Savings Guarantee:** The Bidder must provide a clear and measurable guarantee of energy savings, based on the IGA and M&V methodology.
- 3.34.2 Penalty and Compensation:** If energy savings do not meet the mutually agreed level and Load Operations during the project period . ESCO will be obligated to compensate the client, either through financial penalties or by making up the difference with additional energy savings initiatives.
- 3.34.3 Duration of Contract:** The typical performance contract will span a period of minimum 8 years, depending on the project scope and the financing structure.

3.35 PROGRESS REPORT:

- 3.35.1** The Agency shall periodically submit a Progress Report on the status of work entrusted i.e. monthly as mentioned or as may be mutually agreed upon bringing out the details of energy saved and the works completed, works in hand, bottlenecks, if any, and efforts being made to improve upon the time schedule.
- 3.35.2** The Agency shall also be called to make presentations on the various activities in respect of the project as and when required by MAHAPREIT without any additional cost.
- 3.35.3** The copyrights of all documents provided by the Agency and the documents provided by the MAHAPREIT to the Agency for reviewing in the performance of the Agreement shall at all stages be the property of the MAHAPREIT and while in the custody of the Agency shall be fully available to the MAHAPREIT and its duly authorized representatives. On completion of the provision of the Services, all drawings, documents etc. in relation to the Project shall be delivered/handed over by the Consultant to the MAHAPREIT.

SECTION 4 - SCOPE OF WORK

The Empanelled Agencies shall invest in the capital cost of the project and also maintain the project during its tenure period. The tenure of the project will be minimum 8 years from the date of commissioning/Go Live or mutually agreed as per the project agreement.

1. Design and Engineering:

- Detailed design and engineering for the installation of turbo blowers at each designated STP.
- Selection of the appropriate turbo blower technology based on the specifications of each STP.
- Design modifications, if any, required for existing infrastructure to accommodate the turbo blowers.
- Calculation of expected energy savings, system efficiency improvements, and performance guarantees.

a) Initial Assessment:

- i. Plan an Investment grade Energy Audit of the existing blower system in the Sewage Treatment Plants ("STPs"), assessing current energy consumption, efficiency levels, and identifying potential inefficiencies.
- ii. Perform an Investment Grade Audit ("IGA"). This audit is a comprehensive energy assessment that will Accurately determine the baseline energy usage and operational performance of the existing system.
- iii. The baseline should be established for agreed period between client, MAHAPREIT and agency. The necessary equipment cost shall be borne by agency.
- iv. Identify the potential for energy savings through system upgrades.
- v. Estimate costs and expected Returns on investment ("ROI") from implementing energy-efficient turbo blowers.

Include site-specific recommendations and feasibility studies for installing turbo blowers. Develop and recommend the **Measurement and Verification** ("M & V") protocol in line with IMPMV standard.

- vi. The baseline and M & V Protocol shall be vetted by competent third party.

b) System Design:

- i. Turbo Blower Selection: Based on the audit results, the Bidder will select energy-efficient Active Magnetic turbo blowers that align with the plant's operational needs.
- ii. Integration with Existing Infrastructure: Design modifications, if any, to integrate the new blowers into the existing STP infrastructure.
- iii. The new system shall replace only part of the existing system and the balance existing system (equivalent to present operating condition) shall remain available with the client as a stand by system.
- iv. Energy Savings Calculations: After the IGA, the Bidder will provide a detailed report on expected energy savings, based on system improvements. This report will include energy modeling that predicts the energy savings of the new system compared to the current baseline.

c) Proof of concept :

Bidder shall submit the proof of concept duly witnessed by MAHAPREIT and the respective client/s for project/s as per the requirement.

2. Supply and Installation:

- Supply of energy-efficient turbo blowers, controllers, sensors, and other necessary equipment.

- Installation of the turbo blowers, including any structural modifications, electrical works, and necessary upgrades to integrate the systems.
- Commissioning and testing of the installed system to verify that it meets the agreed specifications.

a) Procurement of Equipment:

- i. The ESCO will supply turbo blowers, controllers, sensors, and any other necessary system components.
- ii. All equipment supplied must be energy-efficient and meet the latest industry Installation:
- iii. standards and regulations for energy savings, reliability, and sustainability.

b) Installation:

- i. The Bidder will manage the installation process, including all electrical, civil, mechanical, and control system works.
- ii. Integration of turbo blowers with the STP's aeration process and associated systems.
- iii. System Testing and Commissioning: The Bidder will conduct thorough system testing and commissioning to ensure that all systems are functioning as per design specifications.
- iv. Post-installation optimization of the system to ensure that the blowers operate at peak energy efficiency.
- v. Mandate a field visit for successful bidders to one STP (if no past performance in India is available).

3. Operation and Maintenance (O&M)

- Operation of the turbo blowers for the term of the contract (typically 8 years however it will be discussed with client on case to case basis), ensuring proper functioning.
- Maintenance services including routine inspections, cleaning, performance checks, and corrective actions if necessary.
- Training of plant personnel in the operation and maintenance of the turbo blowers.

a) Operational Guarantee:

- i. The Bidder shall ensure that the turbo blowers operate at optimized performance levels throughout the contract period.
- ii. The Bidder will provide ongoing maintenance services, which may include: Regular inspections, cleaning, and preventive maintenance.
- iii. Troubleshooting and corrective actions in case of system faults.
- iv. The Bidder will provide training for STP operators to ensure proper handling, maintenance, and operation of the new turbo blower system.
- v. Bidder should have a dedicated maintenance team within the region and must offer annual preventive maintenance plans.

4. Energy Performance Guarantee:

- The Bidder shall guarantee a minimum percentage (over and above 30% energy saving wrt to the base line) of energy savings compared to the baseline established in the IGA. This guarantee will be formalized in the Performance Contract.
- The savings will be based on performance, with payment contingent upon the verified savings achieved over time.

5. Performance Monitoring and Reporting:

- Installation of energy monitoring systems to measure and report energy usage and savings.

- Relevant Data from energy monitoring systems should be made available in real-time (subject to data lag of 12-24 hrs) to MAHAPREIT through a centralized dashboard with multi-user login, role-based access, and audit logs.
- Monthly or quarterly reports to demonstrate savings against baseline consumption.
- Verification of savings by an independent third-party auditor, as necessary.
- Capability to integrate the blower system with SCADA by STP Plant process supplier. IoT-based energy monitoring systems. Turbo blowers should have remote Diagnostics functionality.
- The Bidder must ensure that the blower monitoring system complies with the Government of India's cybersecurity guidelines under CERT-In. All data shall be stored within Indian servers and comply with relevant data privacy standards.

6. Safety and Compliance

- **Safety Protocols:** The provider must implement and maintain rigorous safety measures in the operation and delivery. This includes proper safety training for all personnel, installation of safety measures, and emergency shutdown procedures.
- **Regulatory Compliance:** The provider must ensure that all activities and operations meet the applicable standards and regulations for safety, health, environmental protection, and energy efficiency, as set by the local and national authorities.

7. Training and Knowledge Transfer

- **Staff Training:** The service provider should offer training for the client's staff on steam system operations, emergency procedures, safety protocols, and basic troubleshooting.
- **Documentation:** The provider must supply detailed technical documentation for all systems and equipment involved in steam generation, including operation, maintenance, and troubleshooting manuals.

8. Project Deliverables

The Bidder must provide a Detailed Project Report ("DPR") with a clear and realistic energy performance guarantee and demonstrate how energy savings will be calculated and verified.

i. Design Report:

Detailed design of the turbo blower systems, including specifications, expected energy savings, and integration with existing STP infrastructure.

ii. Supply and Installation Plan:

Complete list of all components to be supplied, including manufacturers, models, and quantities.
A detailed timeline for installation, including key milestones.

iii. Energy Savings Guarantee:

A clear and verifiable energy savings guarantee, with calculations showing projected savings and the methodology for measurement and verification.

iv. Maintenance Plan:

A comprehensive O&M plan detailing routine maintenance schedules, troubleshooting, and preventive maintenance procedures.

v. Performance Monitoring and Reporting:

A clear methodology for tracking and reporting energy consumption and savings, including software tools or platforms used for monitoring.

vi. Training and Capacity Building:

Training materials and sessions for STP operators to ensure efficient operation and maintenance of the new turbo blower systems.

9. Measurement and Verification (M&V)

Purpose of M&V: Measurement and Verification (M&V) ensures that the Bidder delivers the energy savings it guarantees. It involves the ongoing monitoring of energy usage, regular reporting, and the third-party verification of savings.

M&V Process:

- i. Data Collection: Install energy monitoring systems (e.g., submeters, controllers, etc.) to track real-time energy consumption of the turbo blowers and related systems.
- ii. Baseline Energy Consumption: The baseline energy consumption, established during the IGA, will be used to compare against the actual energy consumption post-installation.
- iii. Savings Calculation Methodology: The M&V will follow internationally recognized standards (such as the International Performance Measurement and Verification Protocol (IPMVP)) to calculate energy savings.
- iv. Option A (Whole Facility Measurement): This method measures total energy use before and after the installation, comparing actual energy savings with the baseline.
- v. Option B (Partial Savings Measurement): This method focuses on measuring the performance of individual systems (e.g., blowers) that are directly impacted by the improvements.
- vi. Option C (Simulation-Based Savings): This method uses predictive models to simulate energy savings based on technical characteristics of the systems installed.
- vii. Verification: Independent third-party verification may be required to validate savings and verify that the Bidder is meeting performance guarantees.

M&V Reporting:

- i. Regular reports (monthly/quarterly) will be submitted to the client showing the energy savings achieved.
- ii. If the savings fall short of the guaranteed amount, the Bidder will be required to compensate the client based on the terms outlined in the performance contract.
- iii. Ongoing Monitoring and Adjustments: The Bidder will provide ongoing monitoring of the blower system's performance and make necessary adjustments to ensure that savings targets are met.

SECTION 5 - Empanelment Agreement Framework

The Empanelled Bidder/bidders need to sign Empanelled Agreement with MAHAPREIT. The framework for the empanelled Agreement can be referred in Annexure 12.

SECTION 6 -ANNEXURES Annexure-1 Check List of Technical bid

Sr. No.	Particulars	Uploaded or not	Page No. in the Technical Bid
1	Service Tax registration certificate		
2	PAN Card		
3	Audited balance sheet of last three years		
4	Checklist for technical bid (Annexure-1)		
5	Covering letter (Annexure-2)		
6	Authorization letter (Annexure-3)		
7	Information about the applying firm (Annexure-4)		
8	Annual turnover (Annexure-5)		
9	Assignment of similar nature of Design, Installation, Commissioning and Operating of Magnetic Bearing Energy-Efficient Turbo Blowers/Compressors for Sewage Treatment Plants (STPs) via ESCO Mechanism in (Annexure-6)		
10	Contact person for the RFQ (Annexure-7)		
11	Declaration by the Bidders (Annexure-8)		
12	Other if any		

*** Please write page number as in the box.**

Please ensure:

- I. That all information is provided strictly in the order mentioned in the check list mentioned above.
- II. Bidders are advised to strictly confirm compliance to mentioned conditions in the RFQ document, and not to stipulate any deviation/conditions in their submission. Subsequent to technical Bid submission, MAHAPREIT may or may not seek confirmations/clarifications and bid not in line with conditions of the RFQ shall be liable for rejection.
- III. Any clarification/confirmation Bidders may require shall be obtained from MAHAPREIT before submission of the Bid. Bidders shall submit complete bidding document including subsequent amendment, modification and revision, duly signed and stamped as a token of having read, understood and accepted all the terms and condition mentioned therein.

(Signature of Authorized Signatory) Name:

Designation:

Company Seal:

Annexure-2
Covering Letter (On Bidder's letterhead)

From:

To,
Managing Director,
MAHAPREIT,
BKC, Mumbai

Sub: Empanelment of Agencies for Design, Installation, Commissioning and Operating of Magnetic Bearing Energy-Efficient Turbo Blowers/Compressors for Sewage Treatment Plants ("STPs") via ESCO Mechanism in Maharashtra and other states.

I/we _____ service providing firm herewith enclose Technical bid for Empanelment of Agency/agencies to various types conduct Design, Installation, Commissioning and Operating of Magnetic Bearing Energy-Efficient Turbo Blowers/Compressors for STPs via ESCO Mechanism in of various organizations/institutes in the state of Maharashtra and other states.

1. Having examined the RFQ, we, the undersigned, bid to propose for the Engagement of Agency/agencies with MAHAPREIT, in full conformity with the said RFQ.
2. We have read the provisions of RFQ and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our bid shall not be given effect to.
3. We agree to abide by this bid, consisting of this letter, the qualification and Technical bid, the duly notarized written power of attorney, and all attachments including the presentation to be made to the evaluation Committee, if required, it shall remain binding upon us and at any time before the expiration of the period of engagement.
4. Until the formal final Contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding contract between us.
5. We hereby declare that all the information and statements made in this bid are true and accept that any misinterpretation contained in it may lead to our disqualification.
6. We understand you are not bound to accept any bid you receive.

Signature..... In the capacity of..... Duly authorized to sign bid for and on behalf of.....

Date..... Place.....

Yours faithfully,

Signature & Seal
Full Name & Address

Annexure-3 Format of Power of Attorney for Signing Bid Authorization letter
(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Know all men by these presents, we..... (name and address of the registered office) do hereby constitute, appoint and authorize Mr. /Ms..... (name and residential address) who is presently employed with us and holding the position of..... as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our application for Empanelment of Agencies for Design, Installation, Commissioning and Operating of Magnetic Bearing Energy-Efficient Turbo Blowers/Compressors for Sewage Treatment Plants ("STPs") via ESCO Mechanism in Maharashtra and other states, including signing and submission of all documents and providing information to MAHAPREIT, representing us in all matters before [Insert Name], and generally dealing with MAHAPREIT in all matters in connection with our application for the said Empanelment. We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

For

_____ Signature
Accepted by
..... (Signature)
(Name, Title and Address of the Attorney)

Note: The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, lay down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

Annexure-4 Information about the Bidders Firm
(To be submitted in the official letter head of the company)

SL. No.	Particulars	
1	Name of the Bidders	
2	Address of Bidders with Telephone, email	
3	Address of the Registered Office	
4	Name & Designation of Authorized Signatory for Correspondence (Attach Power of Attorney as per Annexure-6)	
5	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Ltd. Co./Public Sector)	
6	Permanent Account Number (PAN)/TIN (Attach proof)	
7	Firm's Registration Number (Attach proof)	
8	GST Registration Number (Attach proof)	
9	Other details and remarks, if any	

(Separate sheet may be used for giving detailed information duly signed)

Yours faithfully,

(Signature of Authorized Signatory) Name:

Designation:

Company Seal:

Annexure-5 [On the letterhead of Bidding Company]

To,

Managing Director, MAHAPREIT.

BKC, Mumbai.

Dear Sir,

Sub: Empanelment of Agencies for Design, Installation, Commissioning and Operating of Magnetic Bearing Energy-Efficient Turbo Blowers/Compressors for Sewage Treatment Plants (STPs) via ESCO Mechanism in the Maharashtra and other states.

We certify that the Bidding Company had an average Annual Turnover of ₹. ----- based on audited annual accounts of the last three years (FY 2021-22, FY 2022-23, FY 2023-24) for ESCO works in Industries/ Buildings/organisations/institutes.

Authorized Signatory

Statutory Auditor (Power of Attorney holder)
(Stamp & Signature)

Date:

Annexure-6 ASSIGNMENTS OF SIMILAR NATURE DURING LAST 3 YEARS

Sub: Empanelment of Agencies for Design, Installation, Commissioning and Operating of Magnetic Bearing Energy-Efficient Turbo Blowers for Sewage Treatment Plants (STPs) via ESCO Mechanism in India or national level

S.N O	Name of the as- signm ent and brief scope	Name of the Pro- ject	name of the Client	Cost of the Assignment	Date of Comme ncemen t	Date of completion	Assignm ent Satis- fact orily complet ed (En- close Proof/ce rtificate from the client)
1	2	3	4	5	6	7	9

Note: Please attach documentary proof.

(Signature of Authorized Signatory) Name:

Designation:

Company Seal:

Annexure-7 Contact Person for the RFQ

[On the letterhead of Bidding Company]

1	Contact Person name for RFQ	
2	Designation	
3	Contact No. (phone & mobile)	
4	e-mail ID	
5	Corresponding address with Pin code	
6	Remarks	

(Signature of Authorized Signatory) Name:

Designation:

Company Seal:

Annexure-8 Declaration by the Bidders (To be submitted in the official letter head of the company)

I/We _____ (here in after referred to as the Bidders) being desirous of applying for the Empanelment for _____ work under the above-mentioned tender (RFQ) and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the tender (RFQ) document, DO HEREBY DECLARE THAT

1. The Bidder is fully aware of all the requirements of the tender (RFQ) document and agrees with all provisions of the tender (RFQ) document.
2. The Bidder is capable of executing and completing the work as required in the tender (RFQ).
3. The Bidder accepts all risks and responsibilities directly or indirectly connected with the performance of the tender.
4. The Bidder has no collusion with any employee of MAHAPREIT or with any other person or firm in the preparation of the bid.
5. The Bidder has not been influenced by any statement or promises of MAHAPREIT or any of its employees, but only by the tender document.
6. The Bidder is financially solvent and sound to execute the work.
7. The Bidder is sufficiently experienced and competent to perform the contract to the satisfaction of MAHAPREIT.
8. The information and the statements submitted with the tender (RFQ) are true.
9. The Bidder is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10. The Bidder has not been debarred from similar type of work by any State/ Central Government Dept. /PSU/Undertaking.

(Signature of Authorized Signatory) Name:

Designation:

Company Seal:

ANNEXURE 9 - (on OEM Letterhead)

Date:

OEM AUTHORIZATION LETTER

TO WHOMSOEVER IT MAY CONCERN

SUB – Authorization letter from OEM XYZ for Active Magnetic Bearing Technology based TurboBlower

Dear Sir,

We, XYZ are original equipment manufacturers of Active Magnetic Bearing Technology based Turbo Blower, having its Registered office at _____

We hereby confirm that we have appointed M/s. _____ having its registered office at _____, INDIA for India.

As our Authorised Distributor in India to quote, bid, submit offers for tenders, negotiate, conclude and Sell Products manufactured by XYZ. No company or firm or individual other than M/s. XYZ is authorized to bid and conclude any purchase order or tender regarding this business.

This letter is issued as of date shown above and is valid for 365 days from this date OR is valid till further notice.

Thanking You,

For XYZ

Name:

Designation:

Company Seal.

Annexure 10 (On letterhead of Company)

DETAILS OF TECHNICAL SPECIFICATIONS OF ACTIVE MAGNETIC BLOWERS

To,
Executive Director {Admin}
Mahatma Phule Renewable Energy and Infrastructure Technology Ltd {MAHAPREIT},
Pinnacle Corporate Park, 5th Floor,
Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051.

SUBJECT – Confirmation of meeting Technical Specifications OF ACTIVE MAGNETIC BLOWERS by OEM

This is with reference to Tender No. _____ Of MAHAPREIT – Dated -

M/s(Name of Bidder) hereby provide and shall meet complete technical specifications of Active Magnetic Bearing Turbo Blower vetted by(Name of OEM). (please submit attached OEM certificate)

TECHNICAL SPECIFICATIONS OF ACTIVE MAGNETIC BEARING TURBOBLOWER

Turbo Blower general Specifications - Active Magnetic Bearing ('AMB') Technology with Permanent Magnet Motor based Turbo Blower Integrated System for Aeration application in Swage Treatment Plants or Common Effluent Treatment Plants.

Liquid Cooled Active Magnetic Bearings ('AMB') technology with Permanent Magnet Motor based TurboBlower Integrated IIOT system shall be designed to operate according to the climatic conditions at site listed below.

Differential pressure required	As per duty Condition - 0.5 Kg/cm ² to 1 kg/cm ²
Type of Turbobl原因	Liquid Cooling
Maximum operating air inlet temperature	55°C
TurboBlowers operation - Airflow in m ³ /hr	Operating Range at Different Sites requiring Air flow as : 1500m ³ /hr to 3000 m ³ /hr, OR 1500m ³ /hr to 4500m ³ /hr, OR 3000m ³ /hr to 7500 m ³ /hr, OR 3000m ³ /hr to 15000 m ³ /hr
Average air temperature in India	27°C
Lowest air temperature	-10 °C
Relative humidity	65 % RH

- a) Active Magnetic bearings shall be with Permanent Magnet Motor & Magnetic Bearing Controller as a package of European make only. Test certificates & Certificate of Origin to be submitted and should be from 1 supplier. PLC , VFD and Invertor shall be of European make only. Test certificates & Certificate of Origin to be submitted.

(Signature of Authorised Signatory)

Name of Authorised Signatory :

Designation :

Name of the Company/Firm :

COMPANY ORIGINAL SEAL :

Annexure 11 (On letterhead of Company)

FORMAT FOR DECLARATION OF RULE 144 on OEM Letterhead

Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

TO WHOMSOEVER IT MAY CONCERN

SUB – Declaration regarding compliance of Order

Dear Sir,

I, the undersigned, (full names of authorized signatory), do hereby declare, in my capacity as Authorized Signatory of M/S OEM Company name, that

- 1) The facts contained herein are within my own personal knowledge.
- 2) I have read the Order (Public Procurement No.1, 2 & 3) dt 23 July, 2020 & 24 July, 2020 on the subject of Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 regarding restrictions on procurement from a Bidder of a country which shares a land border with India and comply to all the provisions of the Order.
- 3) I certify that M/S XXXX is not from such a country, and it is not procuring AMB Turbo compressor, Active Magnetic Bearing, Magnetic Bearing Controller, Permanent Magnet Motor, PLC, Impeller, and VFD from such a country. I hereby certify that M/S XXXX fulfils all requirements in this regard and is eligible to be considered.
- 4) I understand that the submission of incorrect data and / or if certificate / declaration given by M/S XXXX is found to be false, this would be a ground for immediate termination and further legal action in accordance with law as per Clause 12 of the Public Order on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017.

AUTHORISED SIGNATURE: ____

Name of Authorised Signatory :

Designation :

Name of the Company/Firm :

COMPANY ORIGINAL SEAL :

Annexure 12 (Framework for DRAFT EMPANELMENT AGREEMENT)

This Empanelment Agreement is made and entered into on this ____ day of _____, 2025, at Mumbai, Maharashtra,

BY AND BETWEEN:

Mahatma Phule Renewable Energy & Infrastructure Technology Ltd. (MAHAPREIT), a Government of Maharashtra Undertaking, having its registered office at B-501 Pinnacle Corporate Park, Bandra Kurla Complex, Bandra East, Mumbai – 400051 (hereinafter referred to as the "Authority" or "MAHAPREIT", which expression shall, unless repugnant to the context or meaning thereof, mean and include its successors and permitted assigns)

OF THE FIRST PART

AND

_____,
a [company/LLP/firm] registered under the laws of India, having its registered office at _____,

(hereinafter referred to as the "Agency" or the "ESCO", which expression shall, unless repugnant to the context or meaning thereof, mean and include its successors, legal representatives and permitted assigns)

OF THE SECOND PART

WHEREAS:

1. MAHAPREIT issued a Request for Qualification (RFQ No. MAHAPREIT/ETAP/RFQ – 11/2025) dated _____, inviting proposals from eligible agencies for empanelment to undertake the Design, Supply, Installation, Commissioning, Operation and Maintenance of Energy-Efficient Magnetic Turbo Blowers/Compressors for Sewage Treatment Plants (STPs) via ESCO Mechanism.
2. The Agency submitted its response and has been found eligible for empanelment as per the terms and conditions of the said RFQ.
3. MAHAPREIT has agreed to empanel the Agency to participate in future projects under this scheme on a non-exclusive basis for a period of two years, extendable at MAHAPREIT's discretion.

NOW, THEREFORE, THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. SCOPE OF EMPANELMENT:

- The Agency is hereby empaneled for undertaking the scope of services as per the RFQ for energy-efficient turbo blower systems on an ESCO basis in Maharashtra and other states.
- The actual allocation of work will be through subsequent financial bids invited from empaneled Agencies on a project-to-project basis.

2. TERM AND TERMINATION:

- This Agreement shall be valid for two (2) years from the date hereof and may be extended by MAHAPREIT for an additional one year based on performance.
- MAHAPREIT may terminate this Agreement, without assigning any reason, by giving thirty (30) days' prior written notice.
- Termination shall also be applicable in cases of breach, misrepresentation, insolvency, or non-performance.
- In the event of non-performance of assigned work or breach of project-specific contract terms by the Agency, MAHAPREIT may remove the Agency from the empaneled list without further notice and forfeit any applicable security or performance guarantees.

3. OBLIGATIONS OF THE AGENCY:

- Maintain eligibility throughout the empanelment period.
- Submit financial bids for specific assignments as per MAHAPREIT's request.
- Ensure strict adherence to all technical specifications, performance guarantees, and timelines.
- Comply with M&V protocols, and facilitate third-party audits.
- Pay empanelment fee of Rs. 50,000/- + GST as a one-time, non-refundable charge.

4. PERFORMANCE STANDARDS:

- Each project awarded under this empanelment will be governed by a separate Performance-Based ESCO Contract.
- Such contract will include an energy savings guarantee of at least 30%, M&V protocols, penalties for short-fall in savings, and contract duration ranging from min 8 years, applicability as per Clause 3.34.5 (b).

5. PAYMENTS AND SETTLEMENT:

- Payments shall be made by the respective ULB/Client on a shared savings model as agreed in the project-specific contract.
- MAHAPREIT may charge a facilitation fee from energy savings, as determined at the financial bid stage.

6. CONFIDENTIALITY:

- The Agency shall maintain strict confidentiality of all proprietary and sensitive information obtained from MAHAPREIT or during project execution.

7. INTELLECTUAL PROPERTY:

- All project-specific designs, reports, and documentation prepared during the course of engagement shall be the property of MAHAPREIT.

8. DISPUTE RESOLUTION

- All disputes shall first be attempted to be resolved amicably.
- Failing which, they shall be referred to arbitration under the Arbitration and Conciliation Act, 1996 (as amended), through an institutional arbitration center such as Mumbai Centre for International Arbitration (MCIA).

9. GOVERNING LAW AND JURISDICTION

- This Agreement shall be governed by the laws of India.
- The courts at Mumbai shall have exclusive jurisdiction over all matters arising out of or in connection with this Agreement.

10. MISCELLANEOUS:

- This Agreement shall not be construed as a guarantee of work.
- MAHAPREIT retains the right to empanel multiple agencies at L1 rate and allot work based on competitive selection.
- No joint ventures or to expiate the project consortiums are permitted.
- The Agreement shall be signed in counterparts, each of which shall be deemed to be an original.
- The Agency shall indemnify, defend, and hold harmless MAHAPREIT and its officers from any third-party claims, losses, liabilities, costs, or expenses arising out of or in connection with the Agency's acts, omissions, or breach of this Agreement.
- Neither party shall be held liable for failure to perform its obligations due to force majeure events such as natural disasters, strikes, war, or government actions, provided such events are beyond the reasonable control of the affected party.
- The Agency shall maintain all records and documents related to assigned work for a period of at least five (5) years and shall make them available to MAHAPREIT or its auditors on demand.
- MAHAPREIT's liability under this Agreement shall be limited to the amounts payable under any project-specific contract, and in no event shall MAHAPREIT be liable for indirect, consequential, or punitive damages.
- The Agency shall avoid any engagement or association that may give rise to a conflict of interest with its obligations under this Agreement. Disclosure of any such potential conflict shall be made in writing to MAHAPREIT immediately.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

For MAHAPREIT

(Signature)

Name:

Designation:

Seal:

For the Agency

(Signature)

Name:

Designation:

Seal:

In the presence of:

1. _____

2. _____

Annexure-13: Minimum Technical Specification for Active Magnetic Bearing (AMB) Turbo Blowers

Parameter	Minimum specification/Requirement	Remarks
Blower Type	Active Magnetic Bearing Turbo Blower	
Flow Range	As per project need: 1500 – 15,000 m ³ /hr (refer to operating range in main RFQ)	
Discharge Pressure	0.5 to 1.0 kg/cm ² (adjustable based on site duty conditions)	
Specific Energy Consumption (SEC)	≤ 0.45 kWh/kg of Oxygen Delivered	
Efficiency (Overall System)	≥ 75% at rated capacity	
Drive Motor Type	Permanent Magnet Synchronous Motor (PMSM) or equivalent, efficiency class IE4 or higher	
Motor Cooling	Liquid cooling or equivalent advanced method	
Noise Level	≤ 75 dB(A) measured at 1 meter distance from the blower body	
Turn Down Ratio	Minimum 40% – 100% of rated capacity	
Bearings	active Magnetic Bearings with zero mechanical contact, capable of operating for >100,000 hours	
Control Interface	PLC-based with touchscreen HMI; SCADA/IoT compatibility required	
Communication Protocols	Modbus TCP/IP, OPC-UA, BACnet (at least one mandatory)	
Ambient Conditions	Must perform under Indian conditions: • Ambient Temp: –10°C to 55°C • RH: up to 95% non-condensing	
Ingress Protection (IP Rating)	Minimum IP54 or higher	
Impeller Material	Aluminum Alloy, Titanium or equivalent high- efficiency light-weight material	
Certifications (for OEM)	CE / UL, ISO 9001, ISO 14001, ISO 50001 /ASME mandatory	

Remote Monitoring	IoT-enabled with remote diagnostics capability and cloud-based dashboard	
Safety Features	Surge protection, bearing monitoring, vibration detection, overload alarms, emergency shutdown	
Warranty	Minimum 2 years for complete system, 5 years for magnetic bearing module	