



Municipal Corporation of Greater Mumbai

(Solid Waste Management)

Invitation for Global Expression of Interest (Eoi) for Setting up 1800TPD Waste to Energy Plant and Disposal Facility on Public-Private Partnership (PPP) Basis

1. The Municipal Commissioner of Municipal Corporation of Greater Mumbai (MCGM) invites “Global Expression of Interest (Eoi) for setting up 1800TPD Waste to Energy Plant and Disposal Facility on Public-Private Partnership (PPP) Basis” at Deonar Dumping Ground, Mumbai from entities (companies, firms etc. having a legal status for processing of mixed Municipal Solid Waste (MSW) and disposal of inert.
2. MCGM is local authority for Brihanmumbai area formed under Mumbai Municipal Corporation Act 1888 and is responsible for providing civic amenities to the citizens of Mumbai. Mumbai is having about 437 sq.km. area and a population about 12.5 million and floating population of about 5 million. One of the major civic services, MCGM has to provide is collection, segregation, storage, transportation, processing & disposal of MSW in its area. The activity is governed by SWM Rules 2016 promulgated under the Environment (Protection) Act, 1986. These rules require scientific processing & disposal of MSW generated in Mumbai.
3. The approximate quantity of MSW generated in Mumbai is about 6,500 TPD. MCGM intends to implement and commission the Waste to Energy (WtE) Project in compliance with the Solid Waste Management Rules 2016 and all other Applicable Rules to improve environmental conditions in and around the Deonar dumpsite and reduce burden on Landfill.
4. The primary objective of the Waste to Energy Project is to manage the MSW in an environmentally safe manner and produce energy by using MSW as resource by constructing/ commissioning/ operating an affordable system and sustainable technology that is easy to maintain and in-line with the applicable laws & regulations and Global Standards.
5. The land available at Deonar Dumping Ground (DDG) will be divided into two land parcels; one for the current 600 TPD WtE plant (work already awarded to M/s Chennai MSW Pvt Ltd.) and second for the proposed 1800 TPD.
6. The proposed 1800TPD project shall be commissioned in two stages; Stage-1: 1200TPD (tentative commissioning in year 2025) and Stage-2: 600TPD (tentative commissioning in year 2030).

Decision for taking up the stage 2 project (600TPD) is entirely discretion of MCGM and that will be communicated to concessionaire after three years of commissioning of Stage 1 project. MCGM may totally do away with the Stage 2 project depending on the availability of waste at that point of time.

7. The land parcel of approx. 8.2 Ha is earmarked for proposed 1800TPD project. The green belt shall be developed within this land area.
8. The scope of work for 1800TPD Waste to Energy plant and Processing Facility (Herein after referred to as ‘Waste to Energy Project’) will broadly include the following:
 - a. Design, Build, Finance, Operate and Transfer (DBFOT) a Waste to Energy Project on PPP basis with concession period of 25 years for mixed MSW for generation of energy.
 - b. The Waste to Energy Project shall comply EIA notification 2006 and SWM Rules 2016, amendments if any.
 - c. Proven technology shall be designed and developed to meet the above requirements



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- including obtaining all necessary permits and statutory clearances.
- d. MCGM has constrained land parcel at Deonar Dumping Ground wherein this proposed 1800TPD WtE project has to be established. In case there is any gap in daily waste availability then same will be made available by MCGM.
 - e. The WtE project should be compatible for using RDF from legacy waste.
 - f. The land for the project will be made available to PPP concessionaire on the basis of 'License to Use' to develop 1800TPD Waste to Energy project.
 - g. The bidder must clear/ develop the land of approx. 5Ha by shifting the legacy waste inside the DDG for the project.
 - h. MCGM will provide water source tap point and approach road.
 - i. Developer/ Concessionaire has to arrange land for ash/ inert disposal (landfill) of their own. This could be within MMR region or outside as per their suitability.
 - j. The green belt area development of 33% of project area would be in bidders' scope.
 - k. Environmental Clearance (EC), Airport Authority of India (AAI) clearance, Consent to Establish (CTE), Consent to Operate (CTO) or any other applicable statutory clearances shall be obtained by developer. All compliance management would be in the scope of developer. These clearances has to be taken for the project sites at Deonar as well as landfill site selected by them.
 - l. The proposed project would be based on 'Open Technology', i.e. bidder may recommend any proven technology or combination of technologies requiring minimum footprint area, minimum implementation period, minimum processing time and generating minimum process residues so as to minimize burden on landfill and achieving goal of zero waste to landfill.
 - m. Successful bidder has to enter into Power Purchase Agreement (PPA) with Power Distribution company.
 - n. Bidder shall undertake development of Project including site grading, internal roads, utilities, necessary pipeline works, green-belt landscape, etc., including necessary designs, engineering, obtaining all necessary permits and statutory clearances, construction and maintenance of the above components.
 - o. The proposed Waste to Energy Project shall complement the existing MSW Management System of MCGM. The concessionaire shall work in coordination with other contractors and operators of MCGM and all the works under this Scope of Work shall be undertaken accordingly.
 - p. At the time of tender submission bidder should justify the claim of optimum energy production by proposed methodology by bidder.
9. Entities meeting following Qualification Criteria are eligible to submit response to this document:
- i. Eligible bidder should have designed, financed, engineered, erected and commissioned Waste to Energy Plant employing suitable technology meeting Statutory Requirements and Emission Standards prevailing at the Plant Location in last 10 years and those Plants are in operation services of Waste to Energy Plants **for last two continuous years** as on the date of submission of Response, **meeting any one of the following requirements:**



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- a. One Plant with capacity of 1000 TPD or above
or
- b. Two Plants each with capacity of 600 TPD or above
or
- c. Three Plants each with capacity of 500 TPD or above

And

- ii. Eligible bidder should have experience of carrying out the successful operation services of Waste to Energy Plants for last two continuous years as on the date of submission of Response for One similar Plant of 1000 TPD capacity or Two similar Plants of each 600 TPD capacity or Three similar Plants of each 500 TPD capacity.

And

- iii. Average Annual Turnover of the Eligible bidders in the preceding three (3) financial years shall not be less than INR 170 Crores or equivalent.

And

- iv. Net Worth of the Eligible bidder during the preceding financial year shall be INR 140 Crores or equivalent.

In the event a Company/ Organization on its own does not meet the Eligibility Criteria as given above, it can associate with the Organization(s) who meet the above Qualification Criteria, form a Joint Venture (JV) and submit response. The JV shall have maximum three partners. The JV shall nominate a Lead Member who shall maintain a highest shareholding for the entire Contract Period. The other JV Members shall maintain a shareholding of at least 26% for the entire Contract Period. The JV shall clearly indicate the Roles & Responsibilities of each of the Members and the JV shall be jointly and severally responsible for the execution of the proposed Waste to Energy Project.

10. MCGM wants the Waste to energy Project to be constructed in all respects within 24 months as per the time-line indicated below:

- i. Mobilization and obtaining Statutory Approvals – 6 months
- ii. Design, Construction and Commissioning of Waste to Energy Plant (from the date of Consent to Establish) – 18 months including monsoon

11. Interested entities need to submit response/ application to EoI in an envelope clearly marked "Global Expression of Interest (EoI) for setting up 1800TPD Waste to Energy Plant and Disposal Facility on PPP Basis" not later than 22.02.2021, 5:30PM either by hand or by couriers or by email to the address given below.

che.swmproject@mcgm.gov.in

Address:

Municipal Corporation of Greater Mumbai
Office of Chief Engineer (Solid Waste Management-Project),
4th floor, Bai Padmabai Thakkar Marg,
Kotwadi, Mahim (Shivaji Park),
Mumbai – 400016, India, Ph. +91-22- 24320665

12. The response shall include details of entity and supporting documents to technical qualification criteria in the format as in **Annexure-1** and **Annexure-2**, respectively. The



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financial credentials supporting financial qualification criteria shall be provided as per the format given in **Annexure-3**. The brief write-up on proposed technology brief (basic design details) shall be provided as per the format given in **Annexure-4**.

13. A pre-EoI/ pre-conference meeting will be held at "Conference Hall, 3rd Floor, Municipal Head Office, Annex Building, Mahapalika Marg, Fort, Mumbai" on 04.02.2021 at 15:00 Hrs (IST).
14. Interested Parties may obtain further information from the below mentioned MCGM Officers on working days between 11:00 Hrs. and 16:00 Hrs., excluding the 2nd and 4th Saturdays of the month.

Mr. Sunil Ganpat Godse
Chief Engineer (Solid Waste Management-Project)
Mobile No.: +91-9167494193

Mr. Ratnakar Anerao
Assistant Engineer (Solid Waste Management) New Project
Mobile No.: +91-9702850915

MCGM portal: <http://portal.mcgm.gov.in>

15. MCGM reserves the right to cancel this process of Global EoI at any stage without assigning any reason. The EoI is not part of bidding process.
16. Anybody may please submit Suggestions/ Opinions/ Feedback to this EoI by email or at the address given above on or before 22.02.2021, 5:30PM.

Sd/-

Joint Municipal Commissioner (SWM)
MCGM



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Annexure-1 Details of the Entity

Please provide details of the entity which is submitting an EoI for the project as follows:

Name of Entity	Legal status (Public/ Private Limited/ Proprietorship etc)	Country of Incorporation	Date of Establishment (MM-YY)	Principal place of business	Presence in India (Y/N)	Contact details of Designated Representative					
						Name	Designation	Address	Phone no.	Fax	Email
1	2	3	4	5	6	7	8	9	10	11	12

Note:

i) Electronic copy (editable) of the Annexure-1 should be enclosed along with EoI in CD/ DVD/ Pen-drive.



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Annexure-2 Details of Technical Qualification Criteria

Please provide details of projects that qualify technical criteria in the below format (mention projects in descending order of Capacity (TPD) of project):

Name of Client	Description of project	Project Model (PPP, DBO, DBFOT, etc)	Date of completion	Capacity (TPD) and (MW)	Capex (INR Crore or US\$ Million)	Scope of Work					
						Processing capacity (TPD)	Disposal (TPD)	Technologies used	Currently in Operation (Y/N)	Does the scope include O&M (Y/N)	O&M experience (yrs)
1	2	3	4	5	6	7	8	9	10	11	12

Note:

- 1) Use separate row for each individual project
- 2) Name of client shall include: i) name of legal entity for which work was executed on of project, ii) Contact details (including Name, Designation, address, phone, fax, email of the key client personnel who was in charge of the project)
- 3) Description of project shall include – i) Name of legal entities which were involved in execution of the project, ii) nature of waste characteristics, environmental standards
- 4) Technologies used (Column 9) – e.g. Incineration, Biomethanation, RDF, Pyrolysis, composting etc. A brief write-up on technologies used for processing & disposal shall be enclosed separately for each project.
- 5) Electronic copy (editable) of Annexure-2 details in CD/ DVD/ Pen drive shall be provided.
- 6) The private entity may at their discretion provide any supporting documents which enhances the clarity of the scope of work for each of the projects (including performance certificate) listed above



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Annexure-3: Details of Financial Qualification Criteria

Please provide financial details of entity for the last 3 years that qualify financial criteria in the below format (reverse chronological order i.e. latest financial year in first row):

Financial Year Period (MM-YYYY to MM-YYYY)	Turnover (INR Crore or US\$ Million)	EBITDA (INR Crore or US\$ Million)	PBT (INR Crore or US\$ Million)	Net Worth (INR Crore or US\$ Million)
1	2	3	4	5

Note:

- 1) Use separate row for each financial year
- 2) EBITDA is Earning Before Interest Taxes Depreciation and Amortization
- 3) PBT is Profit Before Tax
- 4) Net Worth is defined as:
Net Worth = (Equity Share Capital plus & Reserves) minus (Revaluation Reserves & Intangible Asset & Miscellaneous Expenditure to the extent not written off and carry forward losses)
- 5) Enclose audited financial statements and annual report for last 3 financial years
- 6) Electronic copy (editable) of Annexure-3 details in CD/ DVD/ Pen drive shall be provided.



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Annexure-4: Proposed Waste Processing & Disposal Technologies and Project Details

Please provide the following details to help us understand your project and technology management plan.

1. Technologies proposed for Waste Processing and Disposal

- Suitability of the waste treatment technologies for processing mixed MSW generally encountered in Mumbai. Inert disposal technology.
- Land requirements for the project.
- Strategy for waste management
- Details of equipment manufacturing/ sourcing

2. O&M plan for the project

- Manpower shifting for the project including details of manpower requirement (skilled and unskilled)
- Plan for sourcing such manpower locally for the project

3. Assessment of the key risks perceived by the entity on the project

- Possible risk mitigation mechanisms
- Expectations/ requirements of the private entity from MCGM

The entities may at their discretion provide any supporting documents which enhances the clarity of the project and technology management strategy.

Note:

- 1) Electronic copy (editable) of Annexure-4 details in CD/ DVD/ Pen drive shall be provided.