MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY

Transaction Advisory for the Taloja
Solid Waste Management Facility

“Expression of Interest”
Document

Mumbai Metropolitan Region Development Authority (MMRDA)
Sub Regional Office, Thane,
SWM Project Cell,
1st Floor, Balkum Fire Brigade Station, Opp. Revaale Talav, Thane-Bhiwandi
Road, Balkum, Thane (West) -400 608, Maharashtra, India.
Telephone: +91-022-25442633/25378121 Mobile: +91-98210 43291
e-mail: mrshah.thane@yahoo.co.in

December 2010
Mumbai Metropolitan Region Development Authority

Newspaper Advertisement

(EOI Abbreviated)
Mumbai Metropolitan Region Development Authority

(A Govt. of Maharashtra Undertaking)
Bandra Kurla Complex, Bandra (E), Mumbai – 400051 India.

Invitation for Global Expression of Interest (EOI) for setting up Regional Solid Waste Management Facility at Taloja, Thane District, Maharashtra

1 MMRDA the infrastructure planning and development authority has taken the lead role for the development of Regional Solid Waste Management (SWM) facilities in accordance with all applicable laws and regulations including the Municipal Solid Waste (Management & Handling) Rules (2000) for processing and disposal of the municipal solid waste generated by Urban Local Bodies (ULBs) in the Mumbai Metropolitan Region (MMR).

MMRDA is planning to setup up the Regional Solid Waste Management Facility at Taloja, Thane District, Maharashtra on a Public Private Partnership (PPP) model and is looking to engage reputed private entities with experience in the management of municipal solid waste through viable and sustainable technologies.

2 MMRDA hereby invites Expression of Interest (EOI) from reputed Indian and International companies / Joint Ventures (JV) for setting up and operating the Regional Solid Waste Management Facility at Taloja.

The scope of work envisioned for the Taloja Regional Solid Waste Management Facility is as follows:

a. Treatment and processing of municipal solid waste (includes conversion to useful output)

b. Disposal of the process remnants generated and inert material in a scientific landfill

c. Setting up transfer stations (where the ULBs will deliver the municipal solid waste) and transportation of waste from the transfer stations to the Integrated waste processing and disposal facility

Private entities with experience in setting up and operating facilities with a capacity of more than or equal to 200 Tonnes per day (in a single installation) in at least 2 (or all) of the 3 above mentioned scope of work can submit the Expression of Interest.

3 The complete EOI document can be downloaded from our website www.mmrdamumbai.org/tenders.htm

4 Applications for EOI must be clearly marked “Expression of Interest for setting up the Regional Solid Waste Management Facility at Taloja” and be submitted along with relevant annexures not later than 3:00 pm on 01/02/2011 (Indian Standard Time) in sealed envelope either by hand or by courier or by registered mail to the address given below.
5 For any further clarifications, contact:
Mr M R Shah, The Principal Advisor, Solid Waste Management Cell,
Mumbai Metropolitan Region Development Authority
1st Floor, Balkum Fire Brigade Station, Opp. Revaale Talav, Thane-Bhiwandi Road,
Balkum, Thane (West) -400 608, Maharashtra, India.
Telephone: +91-022-25442633/25378121 Mobile: +91-98210 43291
e-mail: mrshah.thane@yahoo.co.in

Date: 23/12/2010 Ratnakar Gaikwad

Tender No. MMRDA/SWM/1/2010 Metropolitan Commissioner,
Mumbai Metropolitan Region
Development Authority (MMRDA)
Mumbai Metropolitan Region Development Authority

Complete EOI document
Mumbai Metropolitan Region Development Authority (MMRDA)  
(A Govt. of Maharashtra Undertaking)  
Bandra Kurla Complex, Bandra (E), Mumbai – 400051 India.

Invitation for Global Expression of Interest (EOI) for setting up Regional Solid Waste Management Facility at Taloja, Thane District, Maharashtra

1 MMRDA the infrastructure planning and development authority has taken the lead role for the development of Regional Solid Waste Management (SWM) facilities in accordance with all applicable laws and regulations including the Municipal Solid Waste (Management & Handling) Rules (2000) for managing the municipal solid waste generated by Urban Local Bodies (ULBs) in the Mumbai Metropolitan Region (MMR).

MMR has 8 Municipal Corporations and 9 Municipal Councils which cumulatively generate more than 10,000 metric tonnes of solid waste per day. The proposed development of regional SWM facilities in MMR is among the first of its kind in India.

MMRDA is planning to setup up the Regional Solid Waste Management Facility at Taloja, Thane District, Maharashtra on a Public Private Partnership (PPP) model and is looking to engage reputed private entities with experience in the management of municipal solid waste through viable and sustainable technologies.

2 MMRDA hereby invites Expression of Interest (EOI) from reputed Indian and International companies / Joint Ventures (JV) in the area of Municipal Solid Waste Management for setting up and operating the Regional Solid Waste Management Facility at Taloja.

The scope of work envisioned for the Taloja Regional Solid Waste Management Facility is as follows:

a. Treatment and processing of municipal solid waste (includes conversion of waste to useful output)  
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Private entities with experience in setting up and operating facilities with a capacity of more than or equal to 200 Tonnes per day (in a single installation) in at least 2 (or all) of the 3 above mentioned scope of work can submit the Expression of Interest.

3 This EOI document can be downloaded from our website www.mmrdamumbai.org/tenders.htm

4 Interested private entities will need to include the supporting documents and details provided under Annexures 2-5 along with their Expression of Interest (EOI) submissions. Applications for EOI must be clearly marked “Expression of Interest for setting up the Regional Solid Waste Management Facility at Taloja” and be submitted along with relevant annexures not
later than 3:00 pm on 01/02/2011 (Indian Standard Time) in sealed envelope either by hand or by courier or by registered mail to the address given below.

5 MMRDA reserves the right to accept or reject any/all of the EOI submissions by the private entities. The EOI document does not constitute any binding offer or an agreement by MMRDA. The EOI document may be withdrawn or cancelled by MMRDA at any point of time during the process, without assigning any reasons thereof.

6 Neither MMRDA, nor its employees, consultants, advisors accept any liability or responsibility for the accuracy or completeness of, nor make any representation or warranty, express, or implied, with respect to the information contained in the EOI, or on which the EOI is based. Nothing in the EOI should be relied on, as a promise or representation as to the future.

7 The Applicant shall bear all its costs associated with or relating to the preparation and submission of the EOI including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its EOI.

8 The Expression of Interest should be submitted to the following address:
Principal Advisor,
Solid Waste Management Cell, Mumbai Metropolitan Region Development Authority,
1st Floor, Balkum Fire Brigade Station,
Opp. Revaale Talav,
Thane-Bhiwandi Road,
Balkum, Thane (West) -400 608,
Maharashtra, India.

9 For any further clarifications, contact:
Mr. M.R. Shah
The Principal Advisor, Solid Waste Management Cell, Mumbai Metropolitan Region Development Authority
Desk Telephone: +91-022-25442633/25378121
Mobile Telephone: +91-98210 43291
Fax: +91-022-2544 2633
e-mail: mrshah.thane@yahoo.co.in

Date: 23/12/2010
Ratnakar Gaikwad
Tender No. MMRDA/SWM/1/2010
Metropolitan Commissioner,
Mumbai Metropolitan Region
Development Authority (MMRDA)
Annexure 1: Introduction to the Project

About MMRDA

MMRDA was set up on the 26th January, 1975 under the Mumbai Metropolitan Region Development Authority Act, 1974 (Government of Maharashtra) as an apex body for infrastructure planning and development in the Mumbai Metropolitan Region (MMR) which comprises a total of 8 Municipal Corporations (includes the city of Mumbai) and 9 Municipal Councils.

The major roles of MMRDA as per MMRDA Act, 1974 and subsequent amendments include the following:

1. Regional planning authority involved in preparation of regional plan
2. Special planning authority responsible for micro level planning of notified areas
3. Development Finance agency extending financial assistance to the Urban Local Bodies within MMR
4. Nodal agency for the state for centrally sponsored schemes like JNNURM
5. Coordinating agency responsible for overall development of the region
6. Implementing agency for various infrastructure projects especially of regional nature including transport infrastructure, road network, water supply, integrated solid waste management etc

MMRDA as a regional planning and development authority has undertaken a wide spectrum of projects including Metro and Monorail corridors, important elevated road links, development of regional roads, flyovers, RoBs, skywalks, rental housing, public sanitation, innovation park, multimodal corridor, regional water supply project etc.

Background of the project

- The Mumbai Metropolitan Region (MMR) comprises of 17 Urban Local Bodies (ULBs) i.e. 8 Municipal Corporations and 9 Municipal Councils, having a total area of 4355 sq.km and an estimated population of 20.86 million (2008)

- As per the Municipal Solid Waste (Management & Handling) Rules, 2000, issued by the Ministry of Environment & Forests, Government of India, it is mandatory on the part of the ULBs to scientifically treat/process the Solid Waste and dispose off the process remnants through a sanitary landfill

- However, many of the ULBs are facing genuine constraints on account of scarcity of urban land, lack of technical expertise, huge capital investment, other financial constraints, lack of viability of projects of small capacity and other local problems.

- A modern, efficient, Solid Waste Management System for the MMR would be reckoned as a valuable infrastructure asset which can serve as a catalyst for regional development of MMR. The MMRDA has, therefore, taken the initiative of developing Regional SWM facilities for the ULBs (Municipal Corporations/Councils) within the MMR. The project envisages setting up of regional, integrated SWM Facilities in MMR, designed for 25
years service life which will serve a cluster of ULBs. The Regional SWM Facilities would comprise of waste processing / treatment plants and sanitary landfills.

- The 8 Municipal Corporations and 9 Municipal Councils in MMR cumulatively generate more than 10,000 metric tonnes of solid waste per day.

- The details of the population and waste generation of the ULBs is provided below:

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Municipal Corporations</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Mumbai</td>
<td>13167033</td>
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<td>10835</td>
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<tr>
<td>Kalyan-Dombivali</td>
<td>1361560</td>
<td>3105181</td>
<td>550</td>
<td>1350</td>
</tr>
<tr>
<td>Thane</td>
<td>1551506</td>
<td>3446344</td>
<td>749</td>
<td>1757</td>
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<tr>
<td>Navi Mumbai</td>
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<td>2725855</td>
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<td>Ulhasnagar</td>
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<td>522</td>
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<tr>
<td>Mira Bhayandar</td>
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<td>285</td>
<td>678</td>
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<td>Vasai-Virar</td>
<td>853375</td>
<td>2403014</td>
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<td>822</td>
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<tr>
<td><strong>Municipal Councils</strong></td>
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<tr>
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<tr>
<td>Ambernath</td>
<td>250642</td>
<td>444651</td>
<td>98</td>
<td>187</td>
</tr>
<tr>
<td>Badlapur</td>
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<td>1444859</td>
<td>47</td>
<td>412</td>
</tr>
<tr>
<td>Karjat</td>
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<td>79100</td>
<td>14</td>
<td>33</td>
</tr>
<tr>
<td>Khopoli</td>
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<td>160245</td>
<td>26</td>
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<td>Matheran</td>
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<td>7207</td>
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<td><strong>36651553</strong></td>
<td><strong>11021</strong></td>
<td><strong>19508</strong></td>
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</tbody>
</table>

Source: SWM Cell, National Environmental Engineering Research Institute 2009

- A pre-feasibility survey of fifteen probable sites for regional SWM was carried out by MMRDA.

- The proposed development of Regional SWM facilities in Mumbai Metropolitan Region (MMR) is among the first of its kind with a scale of 17 ULBs in the Indian context.

- There are limited precedents in India for commercial setup and operation of such a project. Implementation of such a project involves a number of stakeholders including ULBs, facility operators and other service providers.

- As the first step, MMRDA has decided to go-ahead with project development of the Regional SWM facility at the Taloja site. The Regional SWM facilities are being developed with a projected operating period of 25 years. Adequate land for the project is
already under the possession of MMRDA. Preparatory work including waste characterization study, techno-commercial assessment, financial plan, transportation model, and institutional model assessment have been completed with the assistance of reputed organizations and consultants. The EIA clearance is in advanced stages of completion.

- MMRDA is planning to set up the Regional Solid Waste Management Facility at Taloja on a Public Private Partnership (PPP) model and is looking to engage reputed private entities with experience in management of municipal solid waste through viable and sustainable technologies.

The scope of work envisioned for the Taloja Regional Solid Waste Management Facility is as follows:

a. Treatment and processing of municipal solid waste (includes conversion of waste to useful output)
b. Disposal of the process remnants and inert material in a scientific landfill
c. Setting up transfer stations where the ULBs will deliver the municipal solid waste and transportation of waste from the transfer stations to the Integrated waste processing and disposal facility

The projected delivery of municipal solid waste to the Taloja facility is expected to be as follows:

a. Mixed solid waste (waste that is generated by residential and commercial entities within the boundaries of the ULBs): 1500 Tonnes per day
b. Separately collected source segregated bio-degradable waste (waste that is generated by vegetable markets/hotels/restaurants): 500 Tonnes per day
c. Process remnants that are provided (by those ULBs which have existing in-house waste treatment facilities) for direct disposal in the landfill: 2500 Tonnes per day

The typical proportion of components in the mixed waste is as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Bio-degradable</th>
<th>Combustible</th>
<th>Recyclable</th>
<th>Inert</th>
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<tbody>
<tr>
<td>Proportion in mixed waste (%)</td>
<td>34-65%</td>
<td>21-39%</td>
<td>11-23%</td>
<td>4-12%</td>
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</tbody>
</table>

*Source: SWM Cell, National Environmental Engineering Research Institute 2009*

The moisture content of the mixed waste is expected to be 16-60% and the calorific value in the range of 800-1200 kcal/kg.
Annexure 2

Details of the company/entity

Please provide details of the entity(s) which is/are submitting an Expression of Interest for the project

<table>
<thead>
<tr>
<th>Name of the Company/Entity</th>
<th>Legal Status (Company - Public/Public, Private, Partnership, Limited Liability, Sole Proprietorship, etc.)</th>
<th>Country of Incorporation</th>
<th>Date of Establishment of the Entity in MMYY format</th>
<th>Principal place of Business</th>
<th>Presence in India (Y/N)</th>
<th>Contact Details of Designated Representative</th>
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<tbody>
<tr>
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Note:

1. Electronic copy of the details of the company/entity in the same template as indicated above in MS Excel format should be enclosed along with the EOI in a compact disk (CD)/digital versatile disk (DVD)

2. Use separate rows (for separate entities) if the expression of interest is being jointly submitted by different entities.
Annexure 3 - Experience in setting up and operating projects in the Municipal Solid Waste Management sector with a capacity more than or equal to 200 Tonnes per day (in a single installation)

Please provide details of projects that you have completed or are in the stage of operation with a capacity more than or equal to 200 TPD (in a single installation) in the field of Municipal Solid Waste Management in the last 10 years in the format provided below (mention projects in descending order of capacity):

<table>
<thead>
<tr>
<th>Name of the Client/Public Authority</th>
<th>Description of the project</th>
<th>Public Private Partnership (PPP)/ any other Model used in the project (if applicable)</th>
<th>Date of completion of the project (in MMYY format)</th>
<th>Scale of the Project (in Metric tonnes per day)</th>
<th>Capital cost of the project in Rs. crores or US$ Million (if the scope of work includes setting up of the facility for the project)</th>
<th>Scope of Work*</th>
<th>Names of the Waste Treatment Technology (s) used (if applicable)</th>
<th>Does the scope of work include setting up of the facility for the project (Y/N)</th>
<th>Does the scope of work include operation of the project (Y/N)</th>
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* - Capacity in tonnes per day for individual activities (activities include setting up transfer stations, transportation, treatment, and disposal) to be specified where applicable. Either treatment or disposal experience is required for each quoted project.

Note:

1. Use separate rows for each individual project
2. “Name of the Client/Public Authority” should include
   a. Name(s) of the Client’s legal entity(s) for which the work was executed
b. Contact Details (including Name, Designation, Address, Phone Number, Fax and Email) of the key Client personnel who was in-charge of monitoring the work done on the project by the private entity providing the Expression of Interest

3. “Description of the project” should include
   a. Name(s) of the legal entity(s) which were involved in the execution of the project
   b. Details on the nature of waste (mixed/source-segregated etc)
   c. Proportion of various components in waste i.e. biodegradable, combustible, recyclable, inert etc
   d. Whether the project is currently operational (Y/N)
   e. The environmental standards under which the waste treatment/disposal technology used in the projects is allowed (egs: Municipal Solid Waste Rules (2000), issued by the Ministry of Environment & Forests, Government of India )

4. Examples of Solid Waste Treatment Technologies include Composting, RDF, Incineration, Biomethanation

5. A brief writeup on the technology used for waste treatment and disposal should be enclosed separately for each of the projects indicated above

6. Electronic copy of the completed project details in the same template as indicated above in MS Excel format should be enclosed along with the EOI in a compact disk (CD)/digital versatile disk (DVD)

The private entities may at their discretion provide any supporting documents which enhances the clarity of the scope of work for the projects (including performance certificates) indicated above
Annexure 4

Financial credentials

Please provide details for the last 5 financial years (mention in reverse chronological order i.e. latest financial year as the first row)

<table>
<thead>
<tr>
<th>Financial year period (from MMDDYY to MMDDYY)</th>
<th>Turnover in Rs. crores or US$ Million</th>
<th>EBITDA in Rs. crores or US$ Million</th>
<th>PBT in Rs. crores or US$ Million</th>
<th>Net Worth in Rs. crores or US$ Million</th>
</tr>
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Note:

1. Use separate rows for details for each separate financial year
2. EBITDA is Earnings Before Interest Taxes Depreciation and Amortization
3. PBT is Profit Before Tax
4. Net Worth is defined as:
   
   \[
   \text{Net Worth} = \text{Equity Share Capital + Reserves - Revaluation Reserves - Intangible Assets - Miscellaneous Expenditures to the extent not written off and carry forward losses}
   \]
5. Enclose audited financial statements and annual reports for the last 5 financial years

6. Electronic copy of the completed financial credentials in the same template as indicated above in MS Excel format should be enclosed along with the EOI in a compact disk (CD)/digital versatile disk (DVD)
Annexure 5

Project and Technology Management

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

1. Technology proposed for the project
   - Suitability of the waste treatment technologies for treating the municipal solid waste generally encountered in India
   - Land requirements for the technology
   - Plan for monetizing the by-products from waste
   - Strategy for managing the Technology for Waste Management
      - Details on R&D, Patenting, and Licensing of technology etc
      - Equipment manufacturing/sourcing

2. O&M Plan for the project
   - Manpower staffing for the project including details of manpower requirements (skilled and unskilled separately) and plans for sourcing such manpower locally for the project

3. Assessment of the key risks perceived by the private entity on the project
   - Possible risk mitigation mechanisms
   - Expectations of the private entity from MMRDA

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