Integrated Solid Waste Management System of Ahmedabad City
## Ahmedabad City Profile

<table>
<thead>
<tr>
<th>Details</th>
<th>Year 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (sq. km.)</td>
<td>466</td>
</tr>
<tr>
<td>Population (Lacs)</td>
<td>63 (approx)</td>
</tr>
<tr>
<td>Wards</td>
<td>48</td>
</tr>
<tr>
<td>Health &amp; Conservancy Staff</td>
<td>12500+</td>
</tr>
<tr>
<td>Solid Waste (TPD)</td>
<td>3800+</td>
</tr>
<tr>
<td>Vehicle - Equipments</td>
<td>1500+</td>
</tr>
<tr>
<td>Annual Budget of SWM (Rs in Crore)</td>
<td>400+</td>
</tr>
</tbody>
</table>
An Overview of Solid Waste Management from different sources

Population of City is 63 lacs plus and daily per capita waste generation is more than 600 gms. City generates more than 3800 TPD waste including 700 MT of construction and demolition waste. Waste is collected, transported, treated and disposed according to the guidelines of Solid Waste Management Rules – 2016.
Waste Collection System

1. Waste Collection by Door / Gate to Dump System.
2. Waste collection from spots and from bins / trolleys
4. Sweeping of Roads
5. Scrubbing of roads through Road Sweeping Machines
6. Safe Collection, Transportation & Disposal of E - waste
7. Collection of segregated of Kitchen waste from Hotels and Restaurants
10. Cleaning of Public Urinals / Toilets and open defecation sites through machines
11. Steps taken for maintaining cleanliness in River
Waste segregation at source in Door To Door System

- Special focus on waste segregation into dry and wet waste at source has been initiated by AMC.
- AMC started new Door to Door/Gate waste collection system with new vehicles with closed body having different compartments with tipping agreement for collection of segregated waste from citizens.
The aforesaid system can be explained in greater detail and for easy understanding by following flow-chart

1. **Society - Units**
   - Owned closed vehicle will collect the waste in segregation mode (Dry / Wet Waste) with the help of Waste Collectors / Waste pickers
   - The waste will be transferred to Refused Transfer Station

2. Wet Waste will be through highly mechanized system will be transferred to a Heavy Body Vehicle with carrying capacity of 20 MT
   - The Heavy Body Vehicle will transfer the waste to Pirana for waste to Energy Plant.

3. Dry Waste will be transferred in the Unit, which will then be segregated with the help of Rag / Waste Pickers
   - The waste will then be transported and transferred to Authorized Waste Recyclers.
સ્વસ્થ સમાવા સ્વસ્થ ગુજરાત... સ્વસ્થ ભારત...

આમદાવદ મુનિસિપલ કોપરેશન

સ્વસ્થ સર્વકાલ-2018

કચરો આ રીતે ને લેગ્યાં છુટો પાડો

- કાગળ (નબ્બર પેપર, નોટબુક વગેરે)
- કાર્ડનોર અને પુકાર
- પેટેટ્સના કામ પછી કામનું મહત્વલક
- સમયપ્રદિવિલી દૃષ્ટિપૂર્વક આપતા 
  પેટેટ્સ (ડટ્ટર પેક વગેરે)
- ફાસ્ટિક

- પ્રગટાટલા શાકભાજી, સાદોમાં પણલ નહાલા શાક
- ફુલ, ક્લો ગાંધ તમામ પ્રાસ્થન પ્રગટલા જખુસ
- શાકભાજી અને ક્કોલા છોતર
- ઘર વે ઘરીયામાં નિકાટનો પણેરનો કચરો
- કાલા ડોકેટ પેપર
- તમામ પ્રાસ્થન પ્રાસ્થન પાસ સામગ્રી

આપના કારણ છુટો પાસવામાં આવતો કચરો કોપરેશનના કારણ દૂર કર્યામાં પાછો આપના દરેક સપાટી સમાધાન થી
અપરસાન સૌથી પાલન સુધીંના અંતરા જરૂર.
Lifting of Bins / Containers

- **757 locations** are defined as waste collection points where **803 closed body 7 cubic meter M. S. Community storage bins** have been provided.

- AMC ensures that these containers are lifted at least once in a day and **500 TPD waste is collected** under this system.

- This work is given on service model, AMC purchased lifters and containers and given on 5 years O&M basis where AMC is paying to Agency per trip basis and on variable km running.

- System is monitored by GPS, RFID Readers and Tags.
## Zone-wise deployment

<table>
<thead>
<tr>
<th>Zone</th>
<th>660 liters Trolleys</th>
<th>1100 liters Trolleys</th>
<th>Total</th>
<th>Compactors used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>10</td>
<td>78</td>
<td>88</td>
<td>7</td>
</tr>
<tr>
<td>East</td>
<td>22</td>
<td>77</td>
<td>99</td>
<td>8</td>
</tr>
<tr>
<td>North</td>
<td>20</td>
<td>142</td>
<td>162</td>
<td>9</td>
</tr>
<tr>
<td>South</td>
<td>48</td>
<td>152</td>
<td>200</td>
<td>12</td>
</tr>
<tr>
<td>New West</td>
<td>91</td>
<td>272</td>
<td>363</td>
<td>16</td>
</tr>
<tr>
<td>West</td>
<td>8</td>
<td>126</td>
<td>134</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>199</strong></td>
<td><strong>847</strong></td>
<td><strong>1046</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>
Waste collection from road side small litter bins

<table>
<thead>
<tr>
<th>Zone</th>
<th>Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>210</td>
</tr>
<tr>
<td>East</td>
<td>150</td>
</tr>
<tr>
<td>North</td>
<td>148</td>
</tr>
<tr>
<td>South</td>
<td>80</td>
</tr>
<tr>
<td>New West</td>
<td>356</td>
</tr>
<tr>
<td>West</td>
<td>296</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1240</strong></td>
</tr>
</tbody>
</table>

8 vehicles deployed for collection
Collection of Construction & Demolition Waste

a) Earlier, Construction and Demolition (C&D) was being disposed without any treatment / recovery which resulted into wastage of land and loss of valuable materials.

b) Ahmedabad Municipal Corporation (AMC) has issued an Expression of Interest (EoI) on 18th March, 2012 for Design, Build, Finance, Own & Operate for 30 years on PPP (Public Private Partnership) Mode. Subsequently, 6 companies sent their offers to this EoI.

c) Work order was issued to Ahmedabad Enviro Projects Ltd. (AEPL) and 5 acres of land was allocated by AMC for this project.

d) AEPL has commenced the plant phase wise from December 2013 and the plant is fully operational since June 2014.

e) AEPL capital investment for this project till time is more than 7 Crore.

f) Citizen are well informed to dump their C& D waste at their own cost at the defined 16 locations. Amdavad Enviro Pvt. Ltd. is authorized by AMC on PPP mode to collect, transport & process 300 TPD C & D waste from designated locations and convert it into various recyclables.
Citizens can register their complaints for collection of construction debris by phone call on AMC operated **Comprehensive Complaint Redressal System (CCRS)**. After the successful resolution of the complaint, the citizen and the concerned municipal authority shall be informed by agency through CCRS. As per Mapping and Scheduling for C&D waste below 1 ton, 4 to 5 spots can be covered per trip for which citizens shall be charged a minimum flat charge of Rs 200 per trip.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Per Metric Ton Rate</th>
<th>Per Trip (Minimum Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 MT waste</td>
<td>-</td>
<td>Rs. 200/-</td>
</tr>
<tr>
<td>For 1-5 MT waste (Minimum quantity)</td>
<td>Rs. 225/-</td>
<td>Rs. 675/-</td>
</tr>
<tr>
<td>More than 5 MT waste (Large quantity)</td>
<td>Rs. 212.5/-</td>
<td>Rs. 1700/-</td>
</tr>
</tbody>
</table>

AMC has made a policy to buy 25 % of Paver blocks and 50% of Manhole covers Final product of the C & D Waste processing agency in the development of different civil & infrastructures projects of AMC by the approval of competent authority. Recently, competent authority of AMC has also approved a policy of procuring Precast / Pre stress wall from the agency to build compound wall for AMC’s various properties.
Final Products from C & D Waste:

1) Precast RCC
   • Benches, Drains, Concrete Manholes, Slabs
   • Sleeper, Louvers Fins, Pavers Rubber Mould, Walls, Drain Covers
   • Pipes & Cement Articles
2) Precast Concrete Box Culverts and Manhole
3) RCC Fencing Pole, Door Frame, Grill
4) Kerb Stone & Ferro Cover, Road Edge Stone, Paving Stone, Granite
5) Paving Blocks Mortar less for Concrete and Interlock Pathways
6) Bitumen bound materials
7) Concrete
8) Pipe bedding
9) Hydraulically bound mixtures (HBM) for sub-base and base
10) Unbound mixtures for sub-base
11) Capping
12) Embankments and Fill
Safe Collection, Transportation & Disposal of E-waste

a) AMC has assigned a work to a Consultant for effective implementation of e-waste (Management and Handling) Rules, 2011 in city.

b) AMC has invited Notice Inviting Proposal (Tender) for selection of a private agency for E-Waste Management System in Ahmedabad Municipal Corporation Region on Public Private Partnership basis (“Project”).

c) ECS Environment Private Ltd has been selected for the above work for 20 years. AMC has issued the Letter of Award for the same on 16th September, 2015.

d) ECS will give AMC Rs. 1.19 Crore in 20 years as Project Development Fee.

e) Ahmedabad is the India’s First City to Initiate a City-wide e-waste Project.
Hon. Mayor Mr. Gautambhai Shah launched India’s First Mobile App and flag off E-waste collection van to collect E-waste generated by citizens.

Collection Points:
AMC Civic Centers at:
Danapith - Relief Road - Memco -
maninagar - Law Garden -
Usmanpura - Bodakdev

Exclusive Project Partner: ECS

Disposal Options:
- Mobile App
- 988 0005 006
- http://ahmedabadcity.gov.in
- Collection Points
<table>
<thead>
<tr>
<th>Status</th>
<th>Number of Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted</td>
<td>43</td>
</tr>
<tr>
<td>Rejected</td>
<td>49</td>
</tr>
<tr>
<td>Waiting</td>
<td>14</td>
</tr>
<tr>
<td>Price Quoted</td>
<td>192</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>298</strong></td>
</tr>
</tbody>
</table>

Number of Requests:  
- Accepted: 69%  
- Rejected: 17%  
- Waiting: 14%  
- Price Quoted: 5%
Sweeping of Roads

- **1484 km roads are swept** by more than 13000 AMC's own street sweepers on a daily basis.
- Street sweeper is provided with a lorry and 6 bins for cleaning activity with other hand tools.
- **Timing :- Morning 6:30 a.m. to 11:30 a.m. & 3 p.m. to 6 p.m. on all roads of the city.**
- **Daily 365 days.**
Scrubbing of roads through Road Sweeping Machines

- 25 trucks / tractors mounted & 15 self rides Road Vacuum Sweeping machines are helping AMC to keep city as a dust free city.
- This work is given on O&M model for 5 years. AMC is paying the Agency on shift basis.
- Vehicles and TPM working is monitored through GPS, RFID Readers and Tags.
Collection of segregated Kitchen waste from Hotels and Restaurants

a) The tender for collection of kitchen waste from different non-residential units and segregate on spot and transport in closed body vehicles for final disposals at the spots suggested by solid waste management department for seven years using own vehicles, equipments and manpower was published in 2008. These non-residential units include like hotels / restaurants / eateries and marriage places/ wadi / halls / canteens / malls and big government / semi-government / private units / institutions / educational campuses with facility of eateries.

b) AMC has awarded work to three agencies for collection of food waste from such units and charge from hotel units on monthly basis so there is no cost to AMC in this system.

c) 80 TPD segregated food waste is collected from more than 1000 units of hotels and restaurants.

d) It is delivered to compost plant for treatment.
Collection of Municipal Bio Medical Waste

AMC has contracted 2 agencies approved by GPCB for daily collection, transportation and disposal of bio-medical waste from 4 municipal hospitals, 2 referral hospitals, 64 urban health centers and dispose it in their incineration plant.

Collection of Carcass / Animal Waste

a) AMC has deployed 4 hydraulic based vehicles and staffs to collect carcass of dead animal like cow, camel, buffalo, donkey, dog, rat, etc. AMC has deployed 2 vehicles to collect fish market, meat market and slaughter house waste from market.

b) The facility is available from 7 am to 11 pm on all 365 days round the year. (Telephone No 079-32984152 & 079-25352911).

c) Around 8 TPD animal waste is collected from the city under this system.
Cleaning of open defecation sites through machines

a) For cleaning of open defecation sites AMC has deployed 6 trolley mounted and 14 auto rickshaw mounted types manure lifting machines.

b) This cleaning is done on a predefined time with proper safety gear on a daily basis.

c) In each zone, 1 trolley mounted machine and 2 rickshaw mounted manure lifting machines have been allotted for doing the work.

d) Extensive IEC campaign and construction of individual / community toilets construction work are also taken up in these areas.
Steps taken for maintaining cleanliness in River

Collection of Flower Waste / Holistic Materials

• City has a historical Sabarmati river.
• To reduce pollution and maintain cleanliness citizens are motivated to deliver flower waste and such holistic materials in the “KALASH” instead of throwing into the river.
• AMC has deployed 16 “KALASH” on 8 bridges of Sabarmati river.
• Such flower waste is collected daily and delivered to decentralized compost plant for treatment.
Cleaning by Machine

Floating Trash Skimmer and waste removal machine with weed cutting arrangement has purchased by AMC and given on O&M basis. This machine is very much useful for cleaning of all types of floating waste as well as for removal of weeds / vegetation etc growing in river water (stagnant water). Cost of machine is Rs 3 Crore.

http://youtu.be/nTV9selozUs
Transfer Stations for Secondary Transportation of Waste

a) AMC has decided to construct minimum one Refuse Transfer Station (RTS) with capacity of 400 TPD in all Six Zones. 7 RTS are operational in 6 zones and 1 RTS at Vasana - Shahwadi is under construction.

b) Each transfer Station have 2 Stationary Compactors, 9 Large Hook Loader Vehicles and 11 Large Containers with 20-25 CMT Capacity to carry 10 to 12 MT waste.

c) These RTS are constructed by AMC and given on O&M basis for 5 years to various agencies and AMC is paying per ton basis with 5% yearly increase.

d) Transfer station helps AMC to save on transportation cost, reduce pollution and ease traffic congestion, and effective & speedily collection of waste.

e) AMC is planning to construct additional 6 Transfer Stations in zones.
Transfer Station
Disposal of Waste

AMC has secured engineered landfill site in operation and made provision for another five scientific landfill sights for Disposal of Inert / Post Process Solid Waste at Gyaspur.

Capacity:

11.50 Lakh Metric Tones (i.e. 1.15 million tons)

Total construction cost of the site:

Rs. 13 Crore (i.e. Rs.130 million)

Area: 12.88 Hectares (32.8271 acres)
ICT - GPS SYSTEM

All contractual vehicles and machineries are monitored through Information, Communication Technology (ICT) since December, 2014 in more than 1000 vehicles
All contractual vehicles and machineries are monitored through Information, Communication Technology (ICT) since December, 2014 in more than 1000 vehicles’
### Central statistics

**Zone Wise Performance Collection Management System**

#### Central Zone
- **Total Container/Bin Lifted:** 75 / 83 (90%)
- **D to D Bin Served:** 1212 / 1216 (99%)
- **Active Vehicles:**
  - Bin Lifter: 8
  - Chota Hathi: 88
  - Compactor: 1

#### East Zone
- **Total Container/Bin Lifted:** 174 / 179 (97%)
- **D to D Bin Served:** 1530 / 1721 (88%)
- **Active Vehicles:**
  - Bin Lifter: 16
  - Chota Hathi: 54
  - Compactor: 1

#### North Zone
- **Total Container/Bin Lifted:** 135 / 142 (95%)
- **D to D Bin Served:** 1738 / 1830 (94%)
- **Active Vehicles:**
  - Bin Lifter: 12
  - Chota Hathi: 100
  - Hook Loader: 10

#### NWZ Zone
- **Total Container/Bin Lifted:** 109 / 130 (83%)
- **D to D Bin Served:** 2715 / 3147 (86%)
- **Active Vehicles:**
  - Bin Lifter: 14
  - Chota Hathi: 91
  - Compactor: 2

#### South Zone
- **Total Container/Bin Lifted:** 145 / 165 (87%)
- **D to D Bin Served:** 1664 / 1924 (86%)
- **Active Vehicles:**
  - Bin Lifter: 18
  - Chota Hathi: 84
  - Hook Loader: 6

#### West Zone
- **Total Container/Bin Lifted:** 179 / 180 (99%)
- **D to D Bin Served:** 2988 / 3374 (88%)
- **Active Vehicles:**
  - Bin Lifter: 18
  - Chota Hathi: 93
  - Hook Loader: 7
Zonal statistics
Waste collection status on map
Current vehicle status on map
Route replay on map
Route replay on map
# CURRENT ICT SYSTEM IN AMC FOR DOOR/GET TO DUMP PROJECT

<table>
<thead>
<tr>
<th>Components</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route</td>
<td>Specific route description like-route-1,2,3 or 4</td>
</tr>
<tr>
<td>Vehicle No.</td>
<td>Mention the respective vehicle number for specific route. Like-GJ-1-CT-1180</td>
</tr>
<tr>
<td>Update Time</td>
<td>Indicates the specific time of collection. Like-11.30 am.</td>
</tr>
<tr>
<td>Point of Interest (POI)/Bins Collected</td>
<td>Mention total number of bins collected in the specific routes.</td>
</tr>
<tr>
<td>Plot on Map</td>
<td>Show the details of the area where from the vehicle collects waste in the map.</td>
</tr>
<tr>
<td>Root Summary</td>
<td>Show the details route summary in the map</td>
</tr>
<tr>
<td>Vehicle Info.</td>
<td>Show vehicle number with the driver name and contact number</td>
</tr>
</tbody>
</table>
ICT SYSTEM : Current Status & Benefits

Current status of project is:
- Zone wise Bin Lifter vehicle details and Bin locations is provided to the computer system.
- GPS device is installed in each Bin Lifter vehicle.
- RFID Tag is mounted on each Bin.
- RFID readers are installed at ward offices, Transfer stations, dump site weighbridges.
- One supervisor for each zone is deployed by the contractor for effective monitoring from 8 am to 6 pm.

Benefits after installation:
- Efficient monitoring and assessment.
- Citizen complaints can be handled with actual details.
- Analytical reports are available for operation monitoring.
- Bin movement can be tracked live.
- Vehicle movement can be tracked live.
- Route optimization.
- Integration of dumpsite and weighbridge data.
- Increase in service, accuracy and safety.
- Improvement of cleanliness of the city.
- Help in identifying the gaps in Solid Waste Management.
Solid Waste Treatment / Processing
## Solid Waste Treatment / Processing :- Present Scenario

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Company</th>
<th>Daily Treatment of and Final product</th>
<th>Work Given in the year</th>
<th>Agreement Period</th>
<th>Land Given</th>
<th>Project Capital Cost (Rs. in Crore)</th>
<th>Operational Since</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Excel Industries Ltd</td>
<td>300 Tons (MSW to Compost)</td>
<td>1997 Renew 2013</td>
<td>15 Years 15 Years</td>
<td>25 Acres</td>
<td>15</td>
<td>January-2000</td>
</tr>
<tr>
<td>2</td>
<td>Bharuch Enviro Engineers Ltd. (UPL Djai Power Ltd.)</td>
<td>250 Tons (MSW to Compost &amp; RDF)</td>
<td>2007</td>
<td>25 Years</td>
<td>15 Acres</td>
<td>25</td>
<td>July -2009</td>
</tr>
<tr>
<td>3</td>
<td>Creative Eco-Recycle Port Pvt. Ltd.</td>
<td>400 Tons (MSW to Compost &amp; RDF)</td>
<td>2009</td>
<td>25 Years</td>
<td>12.5 Acres</td>
<td>50</td>
<td>December-2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(as per agreement 25 Acres but allotted 12.5 acres)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Amdavad Enviro Projects Pvt Ltd</td>
<td>300 Tons (C &amp; D Waste treatment, converting into Recyclable products like paver blocks, curb stones, etc)</td>
<td>2012</td>
<td>30 Years</td>
<td>5 Acres</td>
<td>7.5</td>
<td>December-2013</td>
</tr>
</tbody>
</table>

**DBFOO *:* Design, Built, Finance, Own & Operate**
# 1 Ton Decentralized Compost Plants details

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of Company</th>
<th>Daily Treatment of and Final product</th>
<th>Work Given in the year</th>
<th>Agreement Period</th>
<th>Land Given</th>
<th>Mode of Agreement</th>
<th>Project Capital Cost (Rs. in Crore)</th>
<th>Operational Since</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovative Eco-care Pvt. Ltd.</td>
<td>1 Ton (Green Waste treatment)</td>
<td>2013</td>
<td>5 Years</td>
<td>100 square meters</td>
<td>DBO ** mode Capital investment by AMC Rs. 4.50 lacs and Monthly O &amp; M Rs. 41,000/-</td>
<td>0.045</td>
<td>December - 2013</td>
</tr>
<tr>
<td>2</td>
<td>Gujarat Consumer Industries</td>
<td>1 Ton (Green Waste treatment)</td>
<td>2013</td>
<td>5 Years</td>
<td>100 square meters</td>
<td>DBO mode Capital investment by AMC Rs. 11.11 lacs and Monthly O &amp; M Rs. 50,000/-</td>
<td>0.111</td>
<td>December - 2013</td>
</tr>
</tbody>
</table>

**DBO **: Design, Built & Operate
# New Initiatives of AMC

## Waste to Energy Processing Plants

### 1. Abellon Clean Energy Ltd

<table>
<thead>
<tr>
<th>Daily Treatment</th>
<th>Work Given in the year</th>
<th>Agreement Period</th>
<th>Land Given</th>
<th>Project Info</th>
</tr>
</thead>
</table>
| 1000 Tons (Solid Waste to Power) DBFOO * mode | Work given in 2012, but not able to done financial closure due to low tariff award from GERC. On account of various representations to AMC, AMC has issued Letter of Extension to Abellon on 2nd August, 2016 Concession agreement is signed between AMC and Abellon in April – 2017. Approx. Estimated Capital Cost Rs.211.62 cr. with 8 to 10 % O & M expenditure. | 29 Years | 13 Acres | (1) Will generate 13 to 14 MW electricity per day  
(2) Will commence the project in April - 2019  
(3) 13 acers land will be allotted on Rs 1 / Year lease rent for 29 years  
(4) Technology:  
   a) EU Technology  
   b) Mass Incineration,  
   c) Will follow EU Emission Norms  
(5) Will give Rs. 84 lacs p.a. as royalty to AMC after commencement. |
### 2. JITF Urban Infrastructure Limited

<table>
<thead>
<tr>
<th>Daily Treatment</th>
<th>Work Given in the year</th>
<th>Project Info</th>
</tr>
</thead>
</table>
| 1000 Tons (Solid Waste to Power) DBFOO * mode | AMC sanctioned the project on 16th June, 2016. AMC has issued Letter of Award to JITF on 19th August, 2016 for 30 years and land will be allotted 14 acres. Concession agreement is signed between AMC and JITF in April – 2017. Approx. Estimated Capital Cost Rs.122.8 cr. with 8 to 10 % O & M expenditure. | (1) Will commence the project April - 2019  
(2) Will generate 11 MW electricity per day  
(3) 14 acers land will be allotted on Rs 1 / Year lease rent for 30 years  
(4) Technology:  
**a) Own Technology**  
**A. Pre-processing Section**  
- Sorting of recyclables  
- Drying with Thermophillic enzyme digestion process  
- Mechanized elaborate segregation system for separating into recyclables /inert  
- Producing processed MSW for combustion in Waste to Energy Plant  
**B. Power Generation Section**  
- Producing steam in boiler with processed MSW as fuel  
- Steam Turbine Generator module to produce power  
**b) Will follow MoEF, CPCB, SPCB Norms** |
Material Recovery Facility (M.R.F.) - Solid Waste Recycling Centre

- NEPRA had given proposal for the collection and recycling of waste generated by the commercial units of the different zones of the city. AMC has sanctioned the proposal for the trial run of six months for the collection capacity of waste increasing from 7.5 M.T. to 30 M.T. per day.

- On successful completion of six months, further approval for 14.5 years with land lease of 4000 sq.mt. on Rs 2/Sq. Mt./ Year lease rent will be given.
Scientific Closure of existing Pirana Dump Site

• Legacy Solid Waste is being disposed & accumulated at Pirana dumping site having total area of about 84 acres for a long back. 65 acres of land is accumulated with heaps of garbage having 15-20 meter height at various locations.

• AMC has issued an Expression of Interest for selection of expert and competent Consultant firm to appoint for preparation of detailed project report, design and tender for Scientific Closure of Pirana Dumping site like Mumbai and Pune.

• The Project Management Consultant has conducted required various environmental investigations and prepared all necessary reports for scientifically closure.

• Recently Ahmedabad Municipal Corporation invited the Global Request for Proposal (RFP) of Site Bio-Mining (or any other suitable technology) -cum-Clearance-cum-Recovery of Land with / without Capping of the Site with / without Waste to Energy-cum-other type of treatment plants for Pirana Dump Site of Ahmedabad on Design, Build, Finance, Own & Operate (DBFOO) basis from reputed organizations on Public Private Partnership mode.

• 4 agencies had been shortlisted through global RFP. On further evaluation none of the agency has been finalized. Process for inviting new RFP is in under preparation.
Public Health Bylaws

AMC has prepared Public Health Bye-laws for effective enforcement and maintaining discipline.

- Classification of waste in 30 categories
- Generators of waste based on their type, 20 categories
- Segregation of waste
- Storage of waste
- Delivery & collection of waste
- Processing & disposal of waste
- Liquid Waste Management
- Prevention of Waterborne, Vector borne and Food borne diseases
- Offences under the bye-laws
- General offenses which is applicable to all the citizens within city limit (20 in number)
- Enforcement of the provisions
- Schedule of Fines

This PHBL has sanctioned by Government of Gujarat and notified in Government Gazette on 9th April, 2015.
In World level competition of ISWA, AMC achieved 3rd place for Best Short Film giving message ‘After Life’ for Public Awareness
(Prepared with the help of Students from Mahatma Gandhi International School)
Thanks

Ahmedabad Municipal Corporation