

TRANSMITTAL

To:

THE COUNCIL

Date:

SEP 02 2014

From:

THE MAYOR

TRANSMITTED FOR YOUR CONSIDERATION. PLEASE SEE ATTACHED.



A handwritten signature in black ink, appearing to be 'Eric Garcetti', is written over a faint, circular official seal. The seal contains the text 'CITY OF LOS ANGELES' and 'OFFICE OF THE MAYOR'. The signature is written in a cursive style.

(Ana Guerrero)

ERIC GARCETTI
Mayor

CITY OF LOS ANGELES

CALIFORNIA



ERIC GARCETTI
MAYOR

August 22, 2014

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#1 BOS

Mayor Eric Garcetti
Room No. 305
City Hall
Attn: Mandy Morales

Subject: AUTHORITY TO NEGOTIATE AN AGREEMENT WITH THE CITY OF LONG BEACH AND THE SANITATION DISTRICTS OF LOS ANGELES COUNTY FOR A PARTNERSHIP IN THE OWNERSHIP AND OPERATION OF THE SOUTHEAST RESOURCE RECOVERY FACILITY FOR THE PROCESSING OF MUNICIPAL SOLID WASTE FOR THE CITY OF LOS ANGELES


As recommended in the accompanying report of the Director of the Bureau of Sanitation, which this Board has adopted, the Board of Public Works requests approval and forwarding to the City Council for approval and authorization for the Director of the Bureau of Sanitation to:

1. Pursue negotiations for a partnership with the City of Long Beach and Sanitation Districts of Los Angeles County for co-ownership and operation of the Southeast Resource Recovery Facility.
2. Integrate Green Conversion Systems Inc. and its best available control technology emissions control system in the proposed partnership as appropriate. The City and Green Conversion Systems Inc. are currently under contract negotiations for the development of the first commercial alternative technology facility for the City.
3. Return to the Board, City Council, and Mayor within six months with update on the status of the negotiations.

FISCAL IMPACT

Conducting contract negotiations does not require any funding and does not have any financial impact on the General Fund.

Respectfully submitted,


Arleen P. Taylor, Executive Officer
Board of Public Works


APT:mp

DEPARTMENT OF PUBLIC WORKS

BUREAU OF SANITATION
BOARD REPORT NO. 1
August 22, 2014

CD: CD 15 and ALL

ADOPTED BY THE BOARD
PUBLIC WORKS OF THE CITY
of Los Angeles California
AND REFERRED TO THE MAYOR
AUG 22 2014


Executive Officer

AUTHORITY TO NEGOTIATE AN AGREEMENT WITH THE CITY OF LONG BEACH AND THE SANITATION DISTRICTS OF LOS ANGELES COUNTY FOR A PARTNERSHIP IN THE OWNERSHIP AND OPERATION OF THE SOUTHEAST RESOURCE RECOVERY FACILITY (SERRF) FOR THE PROCESSING OF MUNICIPAL SOLID WASTE FOR THE CITY OF LOS ANGELES

RECOMMENDATIONS

Upon Board, Mayor, and City Council approval, authorize the Director of the Bureau of Sanitation (LASAN) to:

1. Pursue negotiations for a partnership with the City of Long Beach and Sanitation Districts of Los Angeles County (LACSD) for co-ownership and operation of SERRF.
2. Integrate Green Conversion Systems Inc. (GCS) and its best available control technology (BACT) emissions control system in the proposed partnership as appropriate. The City and GCS are currently under contract negotiations for the development of the first commercial alternative technology facility for the City.
3. Return to the Board, City Council, and Mayor within six months with update on the status of the negotiations.

TRANSMITTALS

1. Copy of the Board Report dated May 20, 2011, from Bureau of Sanitation requesting authority to negotiate a contract with Green Conversion Systems (GCS) for a commercial technology category facility for the processing of municipal solid waste utilizing Alternative Technologies premised on resource recovery for the City of Los Angeles.
2. Copy of the adopted Board Report, dated May 7, 2010, requesting authority to request the Best and Final offers from the three (3) short-listed proposers deemed viable under the Alternative Technology commercial scale category for processing municipal solid waste utilizing Alternative Technologies premised on resource recovery for the City.
3. Copy of the adopted Board Report, dated June 1, 2009, requesting authority to negotiate with the short-listed proposers for Development Partner(s) for processing municipal solid waste utilizing Alternative Technologies premised on resource recovery for the City.

FINANCIAL IMPACT STATEMENT

Conducting contract negotiations does not require any funding and does not have any financial impact to the General Fund.

DISCUSSION

Project Background

LASAN is responsible for collecting and processing residential curbside solid waste. For operational purposes, the City is divided into six wastesheds: East Valley, West Valley, South Los Angeles, North Central, West Los Angeles, and Harbor. The City utilizes a four-bin system to collect residential curbside solid waste from over 740,000 residences: green bin (green waste), blue bin (recyclables), brown bin (horse manure), and black bin (post-source separated municipal solid waste, MSW).

Over 2,700 tons per day (tpd) of green, brown, and blue bin materials collected by LASAN are recycled. Also, LASAN collects approximately 3,300 tpd of black bin material. Most of the residual MSW collected by LASAN is landfilled, with approximately 100 tpd delivered to the Southeast Resource Recovery Facility (SERRF) in the City of Long Beach for power generation.

To reduce and eventually eliminate the City's reliance on urban landfills, specifically Sunshine Canyon landfill, the Los Angeles City Council, under the leadership of Council President Eric Garcetti, unanimously adopted the Recovering Energy, Natural Resources, and Economic Benefits from Waste for Los Angeles (RENEW LA) Plan authored by Councilmember Greig Smith. The Plan calls for maximizing recycling and reuse and converting the remaining trash that would otherwise be disposed of at landfills into clean electricity, alternative fuels, and other valuable resources. RENEW LA calls for the establishment of seven conversion technology facilities; one facility located in each of the six wastesheds, and a seventh facility located in the local southern California region.

Additionally, LASAN commenced the Solid Waste Integrated Resources Plan (SWIRP) in 2007, a stakeholder driven process to move the City towards zero waste by 2025. One of the twelve guiding principles established by the stakeholders in 2008 called for investing in new, proven and safe alternative technologies that help accomplish the zero waste goals of SWIRP.

On February 5, 2007, LASAN released a Request for Proposals (RFP) seeking one or more Development Partner(s) for both commercial facilities capable of processing 200 to 1,000 tpd of residual MSW, and emerging facilities capable of processing up to 200 tpd of residual MSW.

On August 22, 2007, LASAN received seven proposals under the commercial technology category from across the globe. Proposed technologies included mechanical, biological, and thermal technologies employing automated and manual sorting, anaerobic digestion, composting, advanced thermal recycling (second generation waste-to-energy technology), and gasification. The Evaluation Panel was comprised of experts from academia, industry, technical consultants, and City staff.

In the summer of 2008, a City delegation including Councilmember Greig Smith (CD 12); Council Deputies from CD 6, CD 11 and CD 12, Mayor's Office staff, LASAN staff and consultant staff from HDR Engineering Inc. (HDR) visited several reference facilities in Europe, Japan, Israel, Canada, and the United States, to evaluate and determine the applicability of available technologies to the City's black bin waste stream.

On June 1, 2009, the Board deemed one of the seven commercial technology proposers that failed the Good Faith Effort (GFE) to be non-responsive (Transmittal #3). The Board also authorized LASAN to continue with further evaluation concerning the financial impacts to the short-listed proposals in light of the Permit Moratorium by the South Coast Air Quality Management District (SCAQMD), and the current global financial and credit crisis, including a reassessment of the impacts on the proposed service fee.

On May 7, 2010, the Board approved the LASAN's recommendations to request the Best and Final Offer (BAFO) Proposals as well as the cost associated with the addition of an upfront pre-processing system to maximize recovery of recyclables including the impact to the service fee and overall output production from three (3) out of the four (4) short-listed proposers under the commercial technology category, namely, GCS, Urbaser & Keppel Seghers, and WTI (Transmittal #2).

On February 17, 2011 and March 11, 2011, HDR and the Evaluation Panel reconvened to evaluate the BAFO responses from the three (3) short-listed commercial proposals. The Evaluation Panel proceeded with the scoring and ranking of the proposals. The Evaluation Panel decided to only score and rank the BAFO responses that provided the highest diversion, best financial options for the City, and a maximum facility throughput of 1,000 (tpd) as specified, under the commercial category of the RFP. The individual Evaluation Panel scores for each proposal were used to determine the final score and ranking order (Transmittal #1).

On May 25, 2011, the Board authorized LASAN to begin contract negotiations with the highest ranked proposer under the commercial technology category. The ranking of the commercial technology category proposals are provided in the table below.

Table - Commercial Technology Category Ranking

Proposer (Vendor)	Rank
Green Conversion Systems (GCS)	1
Urbaser & Keppel Seghers	2
Wheelabrator Technologies Inc. (WTI)	3

Green Conversion Systems (GCS)

Green Conversion Systems proposed to process 1,100 tons per day (tpd) of post-source separated municipal solid waste (MSW) through an upfront pre-processing system and a back-end Advanced Thermal Recycling (ATR) system.

ATR is a second generation advancement of waste-to-energy technology in which MSW is converted in an oxygen-rich environment, to a hot exhaust gas composed primarily of carbon dioxide and water vapor leaving only inorganic material to be converted to bottom ash and fly ash, which can be beneficially used. The hot exhaust gas can then be used to generate heat or steam to produce electricity. ATR proposed by GCS is equipped with advanced air pollution control technologies and consists of a combination of Selective Non-Catalytic Reduction (SNCR) and Selective Catalytic Reduction (SCR) units, wet scrubbers, baghouses, and activated carbon injection to mitigate air emissions. In addition, it had the lowest guaranteed nitrogen oxides (NOx) emissions at 5 parts per million by volume (ppmv). Low levels of nitrogen oxides (NOx) emissions have been achieved at two facilities located in Sweden, one in Halmstad and the other in Uddevalla. Particulate matter (PM10) and volatile organic compounds (VOCs); emissions are 1.5 tons per year (tpy), and 2.1 tpy, respectively. GCS technology would achieve a greenhouse gas (GHG) emissions reduction of 145,348 metric tons of carbon dioxide equivalent (MTCO_{2e}) annually as compared to landfill disposal, based on the U.S. EPA Waste Reduction Model (WARM). The GHG reduction is equivalent to removing approximately 28,500 vehicles from the road per year. ATR is commonly applied in Europe, and for more than three decades, has been used to produce energy from MSW. This technology is supported by European environmental groups as it provides better means to handle the non-recyclable waste than landfilling.

LASAN Development of Commercial Alternative Technology Update:

The City has a goal to achieve zero waste by 2025 through implementation of various policies, programs and infrastructure development. This goal follows the EPA's Waste Management Hierarchy of achieving between 80-85% diversion from landfill through producer responsibility, source reduction, and reuse, followed by recycling and composting, with the remaining 15-20% to be processed through alternative technology, and only the residual waste from alternative technology going to landfill.

Since 2012, LASAN and GCS have been in contract negotiations. The negotiations are progressing slowly due to multiple contract terms that must be agreed upon requiring a series of in-person meetings, conference calls, and term-sheet reviews. Negotiations currently are hinging on identifying a potential facility site so that cost associate with facility construction and operations, permitting, environmental clearance, distribution of power, air emissions credits, and other factors can all be addressed.

Background on Southeast Resource Recovery Facility (SERRF):

SERRF is co-owned by the City of Long Beach and LACSD and is located in a heavy industrial zone in the Long Beach harbor. The City of Long Beach is the majority and operating owner with 61.5% ownership and Sanitation Districts of Los Angeles County owns 38.5%. The governance of the partnership is via a joint power agreement (JPA) with a Board of Directors. The facility began operations in the late 1980 to harvest power from solid waste. SERRF currently operates at 1,300 tpd of solid waste and generates 36 megawatts, providing electricity for approximately 35,000 Long Beach residents. SERRF is permitted for a daily throughput of 2,220 tons of solid waste. Solid waste is received for thermal processing in high temperature furnaces to generate super-heated-steam to propel generator for the production of energy and recoverable solids. The energy generated from steam produces enough electrical power to

operate the SERRF facility, and ash being an end-product of the process is recycled as road base material. SERRF is equipped with the best available control technology (BACT) to eliminate potentially harmful particulates that are generated during the thermal process and the boilers were designed to minimize the formation of trace toxic air contaminants. SERRF uses ammonia to control nitrogen oxides, lime slurry to control sulfur oxides and acid gases, and a multi-chamber fabric filter baghouse for removal of particulate matter. The flue gas is finally ready to exit the baghouse, is discharged through a 265-foot tri-flue stack where emissions are monitored by a combination of continuous monitors and periodic stack sampling. In addition, SERRF performs "front-end" and "back-end" recycling by recovering white goods and other materials prior to combustion and collection metals removed from the boilers after combustion. Each month, an average 825 tons of metal are recycled rather than being sent to a landfill.

The City has been using SERRF to process approximately 100 tpd of the City's MSW from the Harbor wasteshed, which would otherwise be trans-loaded and transported across the City to Sunshine landfill. SERRF and the City do not have long-term contract since SERRF operates on a first come first service basis. SERRF is located in the City of Long Beach at 120 Pier S. Avenue, Long Beach, CA 90802, near the City's boundary in Council District 15.

SERRF Challenges:

SERRF in the near term could face shortfall of revenue to pay for all of its rising operating costs. The revenue shortfall is attributed to the ending of the power purchase agreement with Southern California Edison (SCE) in 2017. The potential rising of operational cost is mainly due to the need to purchase emissions credit under AB32, future cost for equipment maintenance and upgrades and MSW tonnages being disposed at landfills for having lower tipping fees than the rates charged by SERRF. It is estimated that SERRF by 2017 will need to increase its gate fees in order to generate enough revenue to cover its operating cost while securing a waste stream of MSW to continue normal operations.

Benefits of a Partnership of City of Los Angeles, LACSD, and City of Long Beach:

SERRF with its permitted daily capacity does provide a unique opportunity for the City of Los Angeles in the development of the City's Alternative Technologies Program. Located on a 10-acre parcel in a highly industrial zone, SERRF is at a close proximity to the City of Los Angeles. Permitted by CalRecycle to operate as a waste-to-energy facility, SERRF is in full compliance with the South Coast Air Quality Management District's air emission requirements, and all other applicable federal, state, and local environmental regulations. SERRF also has direct connection to the power distribution grid. These attributes facilitate the City's implementation of an Alternative Technology Facility proposed by GCS.

The opportunity for three agencies to foster a partnership will enable the modernization of SERRF by implementing the latest, most-advanced BACT in future equipment replacement cycles to achieve greater air emission reductions. Diverting MSW from landfill disposal to SERRF for energy and other resources recovery also aligns with the City's sustainability goals. Co-partnership of SERRF also offers a more cost-effective strategy than construction of an entirely new Alternative Technology facility. The capital cost of SERRF was \$108 million (1980 dollars), which included AQMD required air control emissions. The capital cost to develop a new Advanced Thermal Recycling facility with the most-advanced BACT equipment, it is estimated in the range of \$250 to \$400 million.

Air Emission Reduction Benefits:

Currently, LASAN delivers approximately 100 tpd of MSW from its Harbor collection district to SERRF. As part of the partnership agreements, LASAN will increase its MSW tonnage delivered to SERRF to 1,100 tpd. This MSW tonnage will be collected from the South Los Angeles watershed and delivered to the Central Los Angeles Recycling and Transfer Station (C.L.A.R.T.S.) located at 2201 E. Washington Blvd., Los Angeles, CA 90021. At C.L.A.R.T.S., the MSW will be transloaded into transfer trucks and taken to SERRF for energy and other resources recovery instead to Sunshine Canyon Landfill for disposal. The relatively shorter transport distance from C.L.A.R.T.S. to SERRF as compared to from C.L.A.R.T.S. to Sunshine Canyon Landfill result in the potential air emission reduction benefits as shown below:

- Emission reduction benefit NO_x: 4,100 lbs/year
- Emission reduction benefit SO_x: 10 lbs/year
- Emission reduction benefit Reactive Organic Gases (ROG): 140 lbs/year
- Emission reduction benefit PM₁₀: 90 lbs/year
- Emission reduction benefit CO₂: 320 MTCO₂/year

Greenhouse Gas Emission Reduction Benefits:

Increase the tonnage of MSW sent to SERRF for energy and other resources recovery will also help reduce greenhouse gas emissions as compared to landfilling of the material. Several published greenhouse gas emission studies have found that diverting solid waste to waste-to-energy (WTE) facilities resulted in net avoided methane emissions as compared to landfilling. The greenhouse gas emission reductions were due mainly to:

- Portion of the electricity generated by WTE facilities derived from biogenic materials offsets the electricity that would otherwise be produced by combustion of fossil fuels such as coal or natural gas.
- Recovery of ferrous and other metals from WTE facilities for recycling reduces the energy needed to mine and process virgin materials for metals.
- Diversion of MSW with organics to WTE facilities for energy recovery eliminates methane emissions that would occur if the materials are landfilled.

The California Air Resources Board (ARB) staff has estimated that the average net avoided greenhouse gas emissions were in the range of -0.19 to -0.48 MTCO₂e per short ton of waste processed at the Long Beach SERRF facility instead of being landfilled (CalRecycle, (September 2013), Municipal Solid Waste Thermal Technologies, available at: <http://www.calrecycle.ca.gov/Actions/Documents/77/20132013/935/MSW%20Thermal%20Technologies%20FINAL.pdf>). Published Life-Cycle Analysis studies conducted by US EPA also support the ARB's findings (Kaplan, P. O.; Decarolis, J.; Thorneloe, S. Is It Better To Burn or Bury Waste for Clean Electricity Generation? *Environ. Sci. Technol.* **2009**, 43 (6), 1711-1717).

Emerging Technologies in the City Los Angeles

LASAN stands committed to shaping the future of emerging technologies in Los Angeles as an alternative to landfill disposal. In a separate front the City continues to pursue emerging technologies such as Anaerobic Digestion (AD) and Gasification under a pilot scale category for the development and maturing of emerging technologies to secure the best future technologies for the City's management of solid waste. LASAN has found that Urbaser Inc. (Urbaser) unique and innovative combinations emerging technologies can process the City's MSW for resource recovery through the application of several combinations of unit process train technologies of upfront pre-processing, AD, composting, and gasification.

Urbaser's emerging technologies is intended to process the organic and non-organic MSW fractions separately to maximize the beneficial use of each. Urbaser application of an anaerobic digestion process for the organic content in MSW (e.g., food discards, soiled and non-recyclable paper, etc.) produces biogas and compost. Likewise, a gasification treatment process applied to carbon-based materials produces synthesis gas (syngas), renewable energy and a more inert vitrified ash product.

Anaerobic Digestion is a biological treatment process in which biodegradable organic content in MSW (e.g., food discards, soiled and non-recyclable paper, etc.) is converted (in an environment absent of oxygen) into biogas consisting mainly of methane and carbon dioxide. The biogas is a renewable energy source that can be used to generate electricity, heat, or converted into an alternative transportation fuel. In addition to biogas, digestate (a processed stream residue) comprised of inorganics, non-degradable organics, etc. is a by-product of the AD process and has the potential to be marketed as compost. Following dehydration, digestate is subjected to an aerobic process to produce compost through a combination of windrow and aerobic static pile conditioning methods.

Gasification is a thermal treatment process in which carbon-based materials are converted, in an environment with limited oxygen, to synthesis gas (syngas) that is composed primarily of hydrogen and carbon monoxide. The syngas can be used to produce electricity or instead be converted into a renewable fuel. The inorganic materials remaining are converted to bottom ash or a vitrified glassy inert material reserved for beneficial use.

LASAN and Urbaser are in negotiations for the development of a pilot scale project that will include AD and Gasification processing units. In a stand-alone report LASAN will provide the status on the ongoing negotiations.

Sustainability:

This new business venture for three agencies provides a great opportunity for the City and the region to further its sustainability goals. Increased diversion of MSW to SERRF will lessen the City's reliance on urban landfilling and reduce the City's carbon footprint, including methane generated from anaerobic decomposition of organics in landfills and carbon dioxide emission due to transport of MSW. In addition, the City will be able to tap directly into this valuable resource for electricity production and thus lessen our dependence on fossil fuels.

City Attorney Review

The Board Report has been reviewed as to form by the Office of the City Attorney.

STATUS OF FINANCING

Funding will not be necessary for the contract negotiations as there is no transfer of funds from the City at this juncture.

FUTURE ACTION

LASAN will return to the Board, City Council, and Mayor with the results of the contract negotiations with LACSD and the City of Long Beach and recommendations for future action.

Respectfully Submitted,



ENRIQUE C. ZALDIVAR, Director
Bureau of Sanitation

Prepared by:
Miguel Zermeno, SRSSD
(213) 485-3611

DEPARTMENT OF PUBLIC WORKS

ADOPTED BY THE BOARD
PUBLIC WORKS OF THE CITY
of Los Angeles California

MAY 25 2011

BUREAU OF SANITATION
BUREAU OF CONTRACT ADMINISTRATION
JOINT BOARD REPORT NO. 1
MAY 20, 2011


Executive Officer

CD: ALL

AUTHORITY TO NEGOTIATE WITH THE HIGHEST RANKED PROPOSER IN THE
COMMERCIAL TECHNOLOGY CATEGORY FOR PROCESSING MUNICIPAL SOLID
WASTE UTILIZING ALTERNATIVE TECHNOLOGIES PREMISED ON RESOURCE
RECOVERY FOR THE CITY OF LOS ANGELES

RECOMMENDATIONS

1. Authorize the Bureau of Sanitation (Bureau) to begin contract negotiations with the highest ranked proposer under the commercial technology category with a pre-processing system. The ranking of the commercial technology category proposals is provided in Table 1 below.

Table 1 - Commercial Technology Category Ranking

Proposer(Vendor)	Rank
Green Conversion Systems (GCS) (formerly WRSI)	1
Urbaser & Keppel Seghers	2
Wheelabrator Technologies Inc. (WTI)	3

In the event that an agreement cannot be reached with GCS, the Bureau shall be authorized to initiate contract negotiations with Urbaser & Keppel Seghers, the second ranked proposer. In the event that an agreement cannot be reached with Urbaser & Keppel Seghers, the Bureau shall be authorized to initiate contract negotiations with WTI.

2. Direct the Bureau to request the City Attorney to retain expert outside legal counsel to assist in the contract negotiations.
3. Direct the Bureau to return to the Board of Public Works (Board) for authority to award and execute the contract.

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TRANSMITTALS

1. Copy of the adopted Board Report, dated May 7, 2010, requesting authority to request the Best and Final offers from the three (3) short-listed proposers deemed viable under the Alternative Technology commercial scale category for processing municipal solid waste utilizing Alternative Technologies premised on resource recovery for the City.
2. Copy of the adopted Board Report, dated June 1, 2009, requesting authority to negotiate with the short-listed proposers for Development Partner(s) for processing municipal solid waste utilizing Alternative Technologies premised on resource recovery for the City.

PROJECT BACKGROUND:

The Bureau is responsible for collecting and processing residential curbside solid waste. For operational purposes, the City is divided into six wastesheds: East Valley, West Valley, South Los Angeles, North Central, West Los Angeles, and Harbor. The City utilizes a four bin system to collect residential curbside solid waste from over 740,000 residences: green bin (green waste), blue bin (recyclables), brown bin (horse manure), and black bin (refuse). The material from the green bins, brown bins, and blue bins are recycled. Approximately 3,300 tons per day (tpd) of black bin material, also known as post-source separated municipal solid waste (MSW), also referred to herein as residual waste, is collected from single-family residents. Most of the MSW is landfilled, with less than 1% being processed beneficially for electrical power generation at the Southeast Resource Recovery Facility in the City of Long Beach.

To reduce and eventually eliminate the City's reliance on urban landfills, Mayor Antonio Villaraigosa directed the Bureau to establish an alternative technology facility(ies) capable of processing post-source separated MSW to assist with diverting materials from urban landfills and to help reach the Mayor's diversion goal of 70% by 2013. In addition, the Los Angeles City Council adopted the Recovering Energy, Natural Resources, and Economic Benefits from Waste for Los Angeles (RENEW LA) Plan, authored by Councilmember Greig Smith, as the blueprint to achieving zero waste within the City over the next 20 years. RENEW LA calls for the establishment of seven conversion technology facilities, with one located in each of the six wastesheds, and the seventh facility located in the local region.

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Additionally, the Bureau commenced the Solid Waste Integrated Resources Plan (SWIRP) in 2007, a stakeholder driven process to move the City toward a zero waste goal by 2025. One of the twelve guiding principles established by the stakeholders in 2008 called for investing in new, proven, and safe technologies that help accomplish the zero waste goals.

On February 5, 2007, the Bureau released a Request for Proposals (RFP) seeking one or more Development Partner(s) for both commercial facilities capable of processing 200 to 1,000 tpd of residual MSW, and emerging facilities capable of processing up to 200 tpd of residual MSW.

On March 7, 2007, the Bureau held a pre-proposal conference that was attended by approximately 75 individuals representing companies within the United States and other countries.

On August 22, 2007, the Bureau received seven proposals under the commercial technology category. Proposed technologies included mechanical, biological, and thermal technologies employing automated and manual sorting, anaerobic digestion, composting, advanced thermal recycling (second generation waste-to-energy technology), and gasification.

From February 26th to 28th, 2008, the Bureau conducted interviews with all qualifying proposers. The presentations were part of the evaluation process, and were attended by staff from the Mayor's Office, City Council, and Bureau, as well as technical consultants, technical advisors, and members of the Evaluation Panel. The Evaluation Panel was comprised of experts from academia, industry, and City staff.

In the summer of 2008, a City delegation composed of Councilmember Greig Smith (CD 12); Council Deputies from CD 6, CD 11 and CD 12, Mayor's Office staff, Bureau staff and consultant staff from HDR Engineering Inc. (HDR) visited several reference facilities in Europe, Japan, Israel, Canada, and the United States, to evaluate and determine the applicability of the technologies to the City's black bin waste stream.

On June 1, 2009, the Board deemed one of the seven commercial technology proposers that failed the Good Faith Effort (GFE) to be non-responsive (as shown in Table 2) (Transmittal #1).

BUREAU OF SANITATION
 BUREAU OF CONTRACT ADMINISTRATION
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Table 2 - Summary of companies that submitted proposals under the commercial technology category

Number	Company Name	GFE: Pass / Fail / Non-responsive
1	Covanta Energy Corp.	Non-responsive
2	CA Renewable Technologies LLC (CART, Arrowbio & CR&R)	Pass
3	Community Recycling	Pass
4	Green Conversion Systems (GCS)	Pass
5	Interstate Waste Technologies (IWT)	Pass
6	Urbaser & Keppel Seghers	Pass
7	Wheelabrator Technologies Inc. (WTI)	Pass

In addition, the Bureau received approval from the Board to short-list the proposals that warranted further evaluation. Table 3 lists the four (4) short-listed commercial proposals (in alphabetical order).

Table 3 - Summary of the short-listed commercial technology proposals

Number	Company Name
1	CA Renewable Technologies LLC (CART, ArrowBio & CR&R)
2	Green Conversion Systems (GCS)
3	Urbaser & Keppel Seghers
4	Wheelabrator Technologies Inc. (WTI)

The Board also authorized the Bureau to continue with further evaluation concerning the financial impacts to the short-listed proposals in light of the Permit Moratorium by the South Coast Air Quality Management District (SCAQMD), and the current global financial and credit crisis, including a reassessment of the impacts (if any) on the proposed service fee.

On June 23, 2009, the Bureau mailed each of the four (4) short-listed proposers a request for additional information (RAI) concerning impacts of the Permit Moratorium by SCAQMD and the current global financial and credit situation to their proposed financial and business arrangement, including their proposed service fee.

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In addition, Bureau staff provided the short-listed proposers with the landfill diversion calculations, financial calculations, and air emissions calculation data performed by HDR. The City offered to meet with each of the proposers at their request to clarify any questions concerning the RFAI.

From July 22nd to 27th, 2009, the Bureau, as requested by the proposers, conducted RFAI clarification meetings. The Bureau met with three proposers; CART, GCS, and Urbaser & Keppel Seghers. WTI did not request a clarification meeting.

On August 10, 2009, the Bureau received the proposers' responses to the RFAI. The Bureau provided the responses for HDR to review, analyze, and assemble in a technical report to the City's Evaluation Panel.

On September 25, 2009, HDR presented a summary of its technical analysis regarding the RFAI responses to the Evaluation Panel. This meeting also provided the opportunity for the Evaluation Panel to discuss and address any additional questions and concerns related to the proposers' responses.

On October 13, 2009, HDR presented a comprehensive technical review and analysis of each proposal under the commercial technology category to the Evaluation Panel. The Evaluation Panel also discussed the findings of the technical analysis.

On November 9, 2009, the Board approved the Bureau's recommendation to negotiate with CART under the emerging technology category. The Bureau is currently conducting contract negotiations with CART for the emerging scale facility.

On May 7, 2010, the Board approved the Bureau's recommendations to request the Best and Final Offer (BAFO) Proposals as well as the cost associated with the addition of an upfront pre-processing system to maximize recovery of recyclables including the impact to the service fee and overall output production from three (3) out of the four (4) short-listed proposers under the commercial technology category, namely, GCS, Urbaser & Keppel Seghers, and WTI (Transmittal #2). The Bureau did not recommend CART for further commercial technology evaluation based on insufficient technical and financial data provided by CART in their response to the Bureau's RFAI dated June 23, 2009.

On August 5, 2010, the Bureau mailed each of the three (3) short-listed commercial proposers a request for BAFO package that included: an updated BAFO offer on the original proposal and an amended proposal that included a front-end pre-processing system, updated proposed service fees, air emissions, ash and digestate management, and other impacts (if any) due to these changes for both original and amended proposals.

The revised proposed service fees were to also reflect the cost of 1) a publicly financed facility; and 2) a privately financed facility. The privately financed facility service fee was to include ownership transfer to the City at the end of 20 years with two options; one based on a fair market value, and an end-of-term value of \$1.00. The City offered to meet with proposers at their request to clarify any questions on the BAFO package.

From September 9th to 24th, 2010, the Bureau, as requested by the proposers, conducted clarification meetings via conference calls and/or in person. The Bureau held meetings with the three proposers; GCS, Urbaser & Keppel Seghers, and WTI.

On November 29, 2010, the Bureau received the proposers' responses to the BAFO. The Bureau provided the responses to HDR to review and analyze, and for the preparation of a technical report to the City's Evaluation Panel.

On February 17, 2011 and March 11, 2011, HDR and the Evaluation Panel reconvened to evaluate the BAFO responses from the three (3) short-listed commercial proposals. The Evaluation Panel proceeded with the scoring and ranking of the proposals. The Evaluation Panel decided to only score and rank the BAFO responses that provided the highest diversion, best financial option's for the City, and a maximum facility throughput of 1,000 (tpd) as specified, under the commercial category of the RFP. Those responses included an upfront pre-processing system to maximize recovery of recyclables, and a privately financed facility with an end-of-term value of one dollar, \$1.00. Each member of the Evaluation Panel (consisting of seven (7) members evaluated all proposals individually by providing individual scores for each of the evaluation criterion. The individual Evaluation Panel scores for each proposal were used to determine the final score and ranking order.

Evaluation of Short-listed Proposals

The Evaluation Panel consists of members of City staff from the Bureau and the Department of Water and Power, the Los Angeles County Sanitation Districts and the California Institute of Technology. The Evaluation Panel was technically assisted by HDR, Inc. (consultant), and a technical support team comprised of City staff and outside technical experts from the University of California, Davis and a Nobel laureate from Cal Recovery, Inc.

Evaluators provided scores for each criterion and the combined total of all evaluators scores were calculated to determine the ranking of proposers as shown in Table 1.

Evaluation Criteria

The RFP released by the Bureau on February 5, 2007, specified eight evaluation criterion and the maximum points to be awarded per criterion as shown in Table 4. Each member of the Evaluation Panel independently scored each proposal based on the criteria and point ranges shown below. The individual scores for each proposal were averaged to determine their rank.

Table 4 - Evaluation criteria and points range as stated in the RFP.

EVALUATION CRITERIA	Point Range
Landfill Diversion. This is defined as: $\frac{(\text{Raw refuse tonnage delivered to the FACILITY}) - (\text{rejected tonnage} + \text{unmarketable byproducts tonnage})}{\text{Raw MSW tonnage delivered to the FACILITY}} \times 100\%$ Diversion from the Landfill should be no less than 80% of the BLACK BIN	25
Service Fee, \$/ton refuse delivered to the FACILITY.	15
Reference FACILITIES. Based on the number of operating FACILITIES that use the proposed technology and their degree of relevance and similarity (throughput level, operating conditions, and installed equipment).	10
Operational Experience. The experience of the PROPOSER (or a team member) in actually operating a similar FACILITIES using the proposed technology.	10
Engineering the FACILITIES. Based on the capabilities and experience of the PROPOSER and its team member in providing a complete, efficient, and workable design for the FACILITY.	10
PROPOSER Credibility. Based on the perceived ability of the PROPOSER and its team member to develop, design, permit, construct, and operate the FACILITY.	10
Experience of PROPOSER and its team member in marketing the different byproducts from the FACILITY.	10
Anticipated environmental impacts and proposed mitigation measures to address air quality, water quality, and other possible impacts (e.g., visual, noise, odors, etc.)	10
Total	100

Summary of Amended Proposals - Includes front-end pre-processing system

The three final proposers are capable and well positioned to assist the City in becoming a world leader in handling and recovering the energy from the MSW. The finalists have demonstrated the expertise required to develop, permit, design, finance, construct, and operate facilities that are similar to their proposed ATR system. The following is a brief description of each of the proposers and their proposed technology.

Green Conversion Systems (GCS):

Green Conversion Systems proposed to process 1,100 tons per day (tpd) of post-source separated municipal solid waste (MSW) through an upfront pre-processing system and Advanced Thermal Recycling (ATR) system.

ATR is a second generation advancement of the waste-to-energy technology in which MSW is converted, in an environment rich of oxygen, to a hot exhaust gas composed primarily of carbon dioxide and water vapor with inorganic material converted to bottom ash and fly ash, which can be beneficially used. The hot exhaust gas can be used to generate heat or steam to produce electricity. ATR is equipped with advanced pollution control technologies that effectively diminish air emissions to a much greater extent than its predecessors. ATR is commonly applied in Europe, and for more than two decades, has been used to produce energy from MSW. This technology is supported by European environmental groups as it provides better means to handle the non-recyclable waste than landfilling.

GCS proposed to recover 29% of recyclable material (paper fibers, plastics, and metals) from an upstream pre-processing system, the highest recovery of recyclable material proposed among the final commercial technology vendors, and then send the residual material through an ATR system. In addition, GCS asserts to process and wash the bottom ash to recover ferrous and non-ferrous metals and glass. GCS plans to divert bottom ash for beneficial use in concrete products, and recycle glass through conventional means. Gypsum and technical grade Hydrogen Chloride (HCl) may possibly be recovered from the air pollution control system residues. Also, GCS intends to process fly ash via a series of leaching, washing, and precipitation steps to extract metal hydroxides or carbonates and mixed salt for reuse. Collectively, with a combination of an up-front pre-processing system and ATR, and a post-thermal treatment for ashes, GCS proposes to achieve greater than 99% landfill diversion rate.

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The GCS proposal is expected to comply with SCAQMD air emission permit requirements by implementing the best available control technology (BACT) for removal of air pollutants. The proposed air pollution control system consists of a combination of Selective Non-Catalytic Reduction and Selective Catalytic Reduction (SCR) units, wet scrubbers, baghouses, and activated carbon injection to mitigate emissions. In addition, it had the lowest guaranteed nitrogen oxides (NOx) emissions at 5 parts per million by volume (ppmv). Low levels of nitrogen oxides (NOx) emissions have been achieved at two facilities located in Sweden, one in Halmstad and the other in Uddevalla. It is particulate matter (PM₁₀) and volatile organic compounds (VOC) emissions are 1.5 tpy, and 2.1 tpy, respectively. Because PM₁₀ and VOC emissions would be less than 4 tpy, GCS claims they would not be required to purchase offsets for these emissions in the South Coast Air Basin. The GCS technology would achieve a greenhouse gas (GHG) emissions reduction of 145,348 metric tons of carbon dioxide equivalent (MTCO_{2e}) annually as compared to landfill disposal, based on the U.S. EPA Waste Reduction Model (WARM). The GHG reduction is equivalent to removing approximately 28,500 vehicles from the road per year.

GCS presented a proven and capable waste processing technology demonstrated from a reference facility in Germany but proposed more innovative and robust emission control systems and ash management systems than those observed at the reference facility. Evaluation of GCS was based on their potential to provide the highest diversion rate assuming that the bottom ash produced is beneficially reused, and a privately financed service fee option with a \$1.00 end-of-term value. GCS presented a strong team to carry out the engineering and operation of the proposed facility, market recyclable products, and provide the best available control technologies and mitigation measures for addressing environmental impacts.

Urbaser & Keppel Seghers:

Urbaser & Keppel Seghers (Urbaser) submitted proposals to process 1,100 tpd of post-source separated MSW through various combinations of upfront pre-processing system, anaerobic digestion, composting, ATR, and gasification.

Anaerobic Digestion (AD) is a biological treatment process in which biodegradable organic content in MSW (e.g., food discards, soiled and non recyclable paper, etc.) is converted in an environment absent of oxygen, into biogas that contains mainly methane and carbon dioxide. The biogas is a renewable energy source and can be used to generate electricity, heat, or converted into alternative transportation fuels. In addition to biogas, digestate, a processed stream residue, consisting of inorganics, non-degradable organics, etc. is a by-product of the AD process that has the potential to be marketed as compost.

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ATR, as described previously is a second generation advancement of the waste-to-energy technology in which MSW is converted, in an environment rich of oxygen, to a hot exhaust gas composed primarily of carbon dioxide and water vapor with inorganic material converted to bottom ash, which can be beneficially used, and fly ash which requires disposal. The hot exhaust gas can be used to generate heat or steam to produce electricity. ATR is equipped with advanced pollution control technologies that effectively diminish air emissions to a greater extent than its predecessors. ATR has been commonly applied in Europe for more than two decades, and used to produce energy from MSW

Gasification is a thermal treatment process in which carbon-based materials are converted, in an environment with limited oxygen, to synthesis gas (syngas) that is composed primarily of hydrogen and carbon monoxide. The syngas can be used to produce electricity or converted into green fuels. The inorganic materials are converted to bottom ash or a vitrified inert which can be beneficially used. The fly ash is treated prior to landfill disposal.

Urbaser proposed to recover approximately between 5-7.5% of recyclable materials from the MSW stream, through the upfront pre-processing system, which is the second highest recovery claim among the proposers. The proposals with an AD unit produce digestate, which can be beneficially reused as compost, and biogas, which can be used as transportation fuel or to generate renewable energy. In addition, the thermal processes, ATR and gasification, are expected to generate energy. Metals that can be recovered from bottom ash can be recycled. The bottom ash is treated prior to being beneficially reused as aggregate. Proposals with a gasification unit include vitrification of the fly ash and flue gas residues by encapsulating the materials within a silica matrix to minimize their leachability. Vitrified ash is proposed to be beneficially reused as aggregate. Collectively, with a combination of an up-front pre-processing system, AD, composting, ATR, gasification, and post-thermal treatment for ash, Urbaser proposes to achieve landfill diversion rates ranging from 94-97%.

A reference facility that contains all the proposed components is currently operational in Europe. A large number of reference facilities containing one or a combination of several of the proposed processes were also available during the reference facilities site visit.

Urbaser proposed facilities are expected to comply with SCAQMD air emission permit requirements by implementing BACT for removal of air pollutants. The proposed air emission control system consists of a SCR unit, an electrostatic precipitator, semi-dry absorber, bag house, and activated carbon injection to mitigate emissions. In addition, it proposed guaranteed NO_x emissions of 31 ppm. Their proposed PM₁₀ emissions range from 6.0 to 7.46 tpy and their VOC emissions range from 10.9 to 34.3 tpy. Moreover, Urbaser's proposed technologies would achieve GHG emissions reduction up to 52,272 MTCO_{2e} annually as compared to landfill disposal, based on the U.S. EPA WARM. The GHG reduction range is equivalent to removing approximately up to 10,249 vehicles from the road per year.

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Urbaser was evaluated based on its ability to provide the highest diversion rate assuming that the bottom ash and digestate produced are beneficially reused, a privately financed service fee option with a \$1.00 end-of-term value, while presenting a proven and applicable technology for MSW as determined from the reference facilities site visit. Urbaser presented a capable team to provide the engineering and operation of the proposed facility, and proposed a robust emission control technology and mitigation measures for environmental impacts.

Wheelabrator Technologies Inc.:

Wheelabrator Technologies Inc (WTI) proposed to process 1,073 tpd of post-source separated MSW through a limited, up-front, pre-processing system and Advanced Thermal Recycling (ATR) system. WTI submitted two identical proposals except for the proposed facility locations: one within the City's boundary (In City of LA) and the other in the Antelope Valley (outside of SCAQMD jurisdiction).

ATR, as described previously, is a second generation advancement of the waste-to-energy technology in which MSW is converted, in an environment rich of oxygen, to a hot exhaust gas composed primarily of carbon dioxide and water vapor with inorganic material converted to bottom ash and fly ash, which can be beneficially used. The hot exhaust gas can be used to generate heat or steam to produce electricity. ATR is equipped with advanced pollution control technologies that effectively diminish air emissions to a greater extent than its predecessors. ATR has been commonly applied in Europe for more than two decades, and has been used to produce energy from MSW.

The upstream pre-processing system proposed by WTI enables the recovery of 1% of recyclables (only plastics) from the MSW prior to sending the residual material through the ATR system. WTI proposed to recover ferrous and non-ferrous metals from the bottom ash. WTI asserts that the bottom and fly ash will be mixed and will be treated to exhibit nonhazardous characteristics, and the combined ash will be used as daily cover at a Waste Management, Inc. landfill. Collectively, with a combination of an up-front MRF and an ATR system, and a post-thermal treatment for ash, WTI proposes to achieve a 97% landfill diversion rate.

The WTI proposed facilities are expected to comply with local Air Quality Management District's air emission permit requirements by implementing BACT for removal of air pollutants. The proposed air emission control system consists of a SCR unit, a dry lime and carbon injection system, and bag houses to mitigate emissions. In addition, it proposed guaranteed NOx emissions at 45 ppmv and PM₁₀ and VOC emissions at 12.4 tpy and 5.9 tpy, respectively. Further, WTI's technology would result in GHG emissions reduction up to 19,459 MTCO_{2e} annually as compared to landfill disposal, based on the U.S. EPA WARM. The GHG reduction is equivalent to removing approximately up to 3,810 vehicles from the road per year.

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WTI was evaluated based on its ability to provide the highest diversion rate assuming that the bottom ash and fly can be diverted and a service fee based on the proposer's privately financed service fee option with a \$1.00 end-of-term value (except for Antelope Valley Site). WTI presented a proven and applicable technology for City MSW as determined from the reference facilities site visits. WTI presented a strong team to carry out the engineering and operation of the proposed facility, ability to market products, and proposed a robust emission control technology and mitigation measures for environmental impacts.

MBE/WBE/OBE Subcontractor Outreach Program

At the time of distribution of the original RFP, the City had established an MBE/WBE/OBE Subcontractor Outreach Program for this project with anticipated participation levels of twenty percent (20%) MBE and six percent (6%) WBE. The MBE/WBE pledged levels for each firm will be established based on the actual scope of work.

In order to be deemed responsive, the Proposers were required to comply with the MBE/WBE/OBE Subcontractors Outreach Program. The program required all respondents to perform and document their Good Faith Effort (GFE) as described in Appendix V of the RFP and credit was given on a PASS/FAIL basis. Appendix V was amended on July 27, 2007 (Addendum No. 3) to further describe the MBE/WBE/OBE information that proposers were instructed to include on the Schedule A, Schedule A-1 and Schedule A-2. These schedules were part the Good Faith Effort documentation process for the RFP. This project is to be developed in two primary work phases; design and construction. Design is considered short term work and construction is considered long term work. Due to the anticipated long term nature of this project the proposers had not yet identified proposed subconsultants to use but rather potential subconsultants that could assist in the construction phase of the project. Therefore, proposers were instructed to use these schedules to list the following: a set of proposed subconsultants to be used for the design of the project (Schedule A), a pre-qualified list of subconsultants to be used for construction and facility operation (Schedule A-1), and a list of subconsultants that may be submitted after award of the construction contract (Schedule A-2).

A review by the Bureau of Contract Administration, Office of Contract Compliance (OCC) of the GFE documentation that was submitted with the proposals determined that the three short-listed commercial proposers (Green Conversion Systems, Urbaser S.A./Keppel-Seghers, and Wheelabrator Technologies, Inc.) passed the GFE and these proposers were deemed responsive.

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The Office of Contract Compliance has verified the subcontractors certification status.

The subcontractors information is as follows:

Gender/Ethnicity Codes:

AA = African American
 APA = Asian Pacific American
 NA = Native American
 M = Male

HA = Hispanic American
 SAA = Subcontinent Asian American
 C = Caucasian
 F = Female

Proposer: Green Conversion Systems (GCS, formerly known as WRSI/DESC):

SCHEDULE A

Green Conversion Systems: MBE/WBE/OBE Participation

SUBCONTRACTORS	MBE/WBE/ OBE	Gender/ Ethnicity	Pledged % of Contract	Pledged amount
Kiewit Construction	OBE		100%	\$200,000,000
Meo & Associates	OBE		0.003%	\$6,120.00
TOTAL MBE Participation			0.00	0.00
TOTAL WBE Participation			0.00	0.00
TOTAL OBE Participation			100.003%	200,006,120
TOTAL MBE/WBE/OBE Participation			100.003%	200,006,120
Total Proposal Amount				\$200,000,000

SCHEDULE A-1

Green Conversion Systems, GCS, listed the following subcontractors:

Subconsultants Name	MBE/WBE/OBE	Gender/Ethnicity
UltraSystems Environmental	WBE	F/C

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Proposer: Urbaser S.A./Keppel-Seghers:

SCHEDULE A

Urbaser: MBE/WBE/OBE Participation

SUBCONTRACTORS	MBE/WBE/ OBE	Gender/ Ethnicity	Pledged % of Contract	Pledged amount
Earth Tech, Inc.	OBE		0.11%	\$500,000
Valorga	OBE		0.68%	\$2,970,000
Ebara	OBE		0.62%	\$2,700,000
S'PACE Group	OBE		0.41%	\$1,800,000
LATHAM & WATKINS	OBE		0.27%	\$1,200,000
ING Capital Markets, LLC	OBE		0.34%	\$1,500,000
TOTAL MBE Participation			0.00	0.00
TOTAL WBE Participation			0.00	0.00
TOTAL OBE Participation			2.44%	\$10,670,000
TOTAL MBE/WBE/OBE Participation			2.44%	\$10,670,000
Total Proposal Amount				\$436,851,998

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SCHEDULE A-1

Urbaser: listed the following subcontractors:

Subcontractors Name	MBE/WBE/OBE	Gender/Ethnicity
Axiom Engineering & Science Corporation	MBE	M/APA
Bali Construction	MBE	M/HA
Beacon Management Group	MBE/WBE	F/SAA
California Watershed Engineering	MBE	M/SAA
Crossroads Services	MBE	M/HA
Earth Mechanics	MBE	M/SAA
Morrow-Meadows Corporation	WBE	F/C
Terry A Hayes Associates LLC	MBE	M/AA
UltraSystems Environmental	WBE	F/C
Wagner Engineering & Survey, Inc.	WBE	F/C
Western Paving Contractors, Inc.	MBE/WBE	F/APA
AVS Engineers, Inc.	OBE	
Crescenta Valley Engineering	OBE	
DCA Civil Engineering Group	OBE	
Damon Construction Company	OBE	
Diane Castano Sallee & Associates, Inc.	OBE	
Santa Clarita Concrete	OBE	

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SCHEDULE A-2
 (None Submitted)

Proposer: Wheelabrator Technologies, Inc. (WTI):

SCHEDULE A

WTI: MBE/WBE/OBE Participation

SUBCONTRACTORS	MBE/WBE/ OBE	Gender/ Ethnicity	Pledged % of Contract	Pledged amount
(None Listed)			0.00%	0.00
TOTAL MBE Participation			0.00%	0.00
TOTAL WBE Participation			0.00%	0.00
TOTAL OBE Participation			0.00%	0.00
TOTAL MBE/WBE/OBE Participation			0.00%	0.00
Total Proposal Amount				None Listed

SCHEDULE A-1

WTI: listed the following subcontractors:

Subcontractors Name	MBE/WBE/OBE	Gender/Ethnicity
A-1 Steel Fence	MBE	M/HA
Advanced Geosolutions, Inc.	MBE	M/HA
Air Management Industries, Inc.	WBE	F/C
Allied Mechanical Air Systems, Inc.	MBE	M/APA
American Quality Floors	MBE	M/AA
American Wrecking	MBE	M/HA
Cabral Roofing & Waterproofing Corp.	MBE	M/HA

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Cinco Iron Works	MBE	M/HA
Excelsior Elevator Corp.	MBE/WBE	F/APA
G & F Concrete Cutting, Inc.	MBE/WBE	F/HA
H & K Construction dba HNK Tech, Inc.	MBE	M/APA
Meadows Sheet Metal and Air Conditioning, Inc. dba Meadows Mechanical	WBE	F/C
PHL dba Van Nuys Sheet Metal	MBE/WBE	F/APA
Ramirez Masonry, Inc.	MBE	M/HA
Sonox Energy Engineering, Inc.	MBE	M/AA
T & M Construction	WBE	F/C
Ted's Industrial Insulation, Inc.	WBE	F/C
William Dunn Masonry	MBE	M/AA
A+ Superior Sanitation	OBE	
Absolute Abatement & Demolition	OBE	
Ackerman and Sons	OBE	
Action Duct, Inc.	OBE	
Addscape dba Alpha Omega	OBE	
Air Duct Cleaning Company	OBE	
Alexander Electric	OBE	
Anderson Charnesky Structural Steel	OBE	
Apex Suspended Ceilings	OBE	
B.T. Turner Trucking and Demolition, Inc.	OBE	
BMD Technologies	OBE	
Budlong & Associates	OBE	

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Building Electronic Controls	OBE	
C.R. Grading & Equipment	OBE	
Caliber Graphics	OBE	
Canoga Rebar	OBE	
Cable Bros. Construction Company	OBE	
Coordinated Delivery	OBE	
Courtney Waterproofing	OBE	
Courts Heating and Cooling, Inc.	OBE	
D.P. Tree Service	OBE	
Dixen aka "Truck Works"	OBE	
Don La Force Associates	OBE	
El Capitan Envir Services	OBE	
Emerald Metal Products	OBE	
First Choice A/C & Heating	OBE	
First Fire Systems	OBE	
Frank S. Smith Masonry	OBE	
Franklin Reinforcing Steel	OBE	
Gemini-HVAC	OBE	
Golden State Fencing	OBE	
Haitbrink Asphalt Paving	OBE	
Hawaii Painting	OBE	
Inman Welding	OBE	
Insul-Flow	OBE	

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L&D Electric	OBE	
M&L Metal Masters	OBE	
Metal Supply, Inc.	OBE	
Mike Prlich & Sons	OBE	
Modular Systems	OBE	
Quality Building Maintenance	OBE	
Qualls Equipment aka "Dynamic"	OBE	
Reliable Equipment	OBE	
Restroom Facilities	OBE	
San Gabriel Insulation	OBE	
Shade America	OBE	
Shanks Electric	OBE	
Solin Construction	OBE	
Southwest Material Handling	OBE	
Specialized Construction	OBE	
Specialty Roofing	OBE	
Twins Roofing	OBE	
Two Bears Metal	OBE	
Valverde Construction	OBE	
Versatile Coatings	OBE	
Warstrben Construction	OBE	
Poppin Backhoe Services	OBE	

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**SCHEDULE A-2
(None Submitted)**

Other City Requirements

All proposers will be required to comply with the following City policies and requirements:

- Non-Discrimination/Equal Employment Practices/Affirmative Action
- Living Wage and Service Contractor Worker Retention Ordinances
- Equal Benefits Ordinance
- Business Tax Registration Certificate (BTRC)
- Child Support Assignment Ordinance
- Slavery Disclosure Ordinance
- Headquarters and Los Angeles Residence Information
- Americans with Disabilities Act
- Contract History
- Non-Collusion Affidavit
- Insurance and Performance Bond Requirements

Notification of Intent to Contract

The required Notification of Intent to Contract was filed with the CAO Clearinghouse on May 03, 2011.

Charter Section 1022

On December 16, 2008, the Bureau requested a Charter Section 1022 determination from the Office of the City Administrative Office (CAO). The CAO determined that City employees did not have the expertise to perform the work.

Contractor Responsibility Ordinance

The best qualified proposer will be subject to compliance with the requirements specified in the City of Los Angeles' Contractor Responsibility Ordinance #173677, [Article 14, Chapter 1, Division 10, L.A.A.C.]. Failure to comply with requirements specified in this ordinance will render the bidder's contract subject to termination pursuant to the conditions expressed therein.

Contractor Performance Evaluation

In accordance with Article 13, Chapter 1, Division 10 of the City of Los Angeles Administrative Code, the appropriate City personnel responsible for quality control of this Personnel Services Contract shall submit a Contractor Performance Evaluation Report to the Bureau of Contract Administration upon completion of this contract.

Headquarters Addresses and Workforce Information:

Company	Headquarter Location	Total Employment	% LA City Residents
Green Conversion Systems LLC.	411 Theodore Fremd Avenue, Suite 102 Rye, New York 10580	20	10.00%

Company	Headquarter Location	Total Employment	% LA City Residents
Urbaser	Avda Tenerife 4 & 6, 28703 San Sebastián de los Reyes, Madrid, SPAIN	37,620	0.00%

Company	Headquarter Location	Total Employment	% LA City Residents
Wheelabrator Technologies Inc.	4 Liberty Lane West, Hampton, NH 03842	45,000	0.25%

Contract Administration

Responsibility for the administration and management of this contract will rest with the Solid Resources Support Services Division (SRSSD) of the Bureau of Sanitation.

CONCLUSION

Based on the Evaluation Panel's scoring results for the three short-listed vendors under the commercial technology category, the Bureau requests the approval from the Board of Public Works to proceed with contract negotiations with the highest rank proposer, GCS, to obtain the best terms and conditions pertaining to facility location, service fee diversion rate, residue disposal including ash management, environmental impacts, and proposed mitigation measures including the application of the best available control technologies. GCS was determined to be the highest ranked proposer by the Evaluation Panel.

In the event that an agreement cannot be reached with GCS, the Bureau shall be authorized to initiate contract negotiations with Urbaser, the second ranked proposer. In the event that an agreement cannot be reached with Urbaser & Keppel Seghers, the Bureau shall be authorized to initiate contract negotiations with WTI.

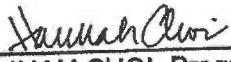
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FUTURE ACTION

The Bureau will return to the Board, City Council and Mayor with the results of the contract negotiations and recommendations for future action.

COMPLIANCE REVIEW PERFORMED
AND APPROVED BY


HANNAH CHOI, Program Manager
Office of Contract Compliance
Bureau of Contract Administration

Respectfully submitted,


ENRIQUE C. ZALDIVAR, Director
Bureau of Sanitation


JOHN L. REAMER, JR., Director
Bureau of Contract Administration

Prepared by:
Miguel A. Zermeno, SRSSD
213-485-3611

TRANSMITTAL 2

DEPARTMENT OF PUBLIC WORKS

BUREAU OF SANITATION
BOARD REPORT NO. 1
May 7, 2010

ADOPTED BY THE BOARD
PUBLIC WORKS OF THE CITY
of Los Angeles California

MAY - 7 2010


Secretary

CD: ALL

*
AUTHORITY TO REQUEST BEST AND FINAL OFFERS FROM THREE SHORT-LISTED PROPOSERS UNDER THE COMMERCIAL TECHNOLOGY CATEGORY FOR PROCESSING MUNICIPAL SOLID WASTE UTILIZING ALTERNATIVE TECHNOLOGIES PREMISED ON RESOURCE RECOVERY FOR THE CITY OF LOS ANGELES

RECOMMENDATIONS

1. Authorize the Bureau of Sanitation (Bureau) to request a Best and Final offer from three (3) out of the four (4) short-listed proposers deemed viable under the alternative technology commercial scale category:
 - Green Conversion Systems (GCS, formerly WRSI),
 - Urbaser & Keppel Seghers (base proposal and alternative proposal), and
 - Wheelabrator Technologies Inc. (WTI).
2. Authorize the Bureau to request additional information from the three (3) short-listed commercial scale category proposers (as applicable) concerning the cost associated with adding a pre-processing system and/or the impact to the service fee and overall output production.
3. Direct the Bureau to return to the Board of Public Works (Board) with a technical and financial report on the findings and recommendation to negotiate with the highest ranked proposer.

TRANSMITTALS

1. Copy of the adopted Board Report, dated June 1, 2009, requesting authority to request additional information from the four short-listed commercial scale facility proposers for Development Partner(s) for processing municipal solid waste utilizing alternative technologies premised on resource recovery for the City of Los Angeles.
2. Copy of the adopted Board Report, dated November 9, 2009, requesting authority to negotiate with California Renewable Technologies, LLC (CART) under the emerging technology category for processing municipal solid waste utilizing alternative technologies premised on resource recovery for the City of Los Angeles.

DISCUSSION

The Bureau is requesting authority to request additional information/action from three (3) short-listed commercial scale category proposers based on the following reasons:

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1. Obtain the cost associated with adding pre-processing system for maximum the recovery of recyclable materials.
2. Verify revised overall output production after implementation of pre-processing system as necessary.
3. Request Best and Final offer from the three shortlisted companies reflective of costs with and without the preprocessing option.

Project Background:

The Bureau is responsible for collecting and processing residential curbside solid waste. For operational purposes, the City is divided into six wastesheds: East Valley, West Valley, South Los Angeles, North Central, West Los Angeles, and Harbor. The City utilizes a four bin system to collect residential curbside solid waste from over 740,000 residences: green bin (green waste), blue bin (recyclables), brown bin (horse manure), and black bin (refuse). The material from the green bins, brown bins, and blue bins are recycled. Approximately 3,300 tons per day of black bin material, also known as post-source separated municipal solid waste (MSW), and also referred to herein as residual waste, is collected. Most of the MSW is landfilled, with less than 1% being processed at an alternative technology facility in Long Beach.

To reduce and eventually eliminate the City's reliance on urban landfills, Mayor Antonio Villaraigosa directed the Bureau to establish an alternative technology facility(ies) capable of processing post-source separated MSW to assist with diverting materials from urban landfills and to help reach the Mayor's diversion goal of 70% by 2013. In addition, the Los Angeles City Council adopted the Recovering Energy, Natural Resources, and Economic Benefits from Waste for Los Angeles (RENEW LA) Plan, authored by Councilmember Greig Smith, as the blueprint to achieving zero waste within the City over the next 20 years. RENEW LA calls for the establishment of seven conversion technology facilities, with one facility located in each of the six wastesheds, and the seventh facility located in the local region.

On February 5, 2007, the Bureau released a Request for Proposals (RFP) seeking one or more Development Partner(s) for both commercial facilities capable of processing 200 to 1,000 tons per day of residual MSW, and emerging facilities capable of processing up to 200 tons of residual MSW per day.

On March 7, 2007, the Bureau held a pre-proposal conference that was attended by approximately 75 individuals representing companies within the United States and other countries.

On August 22, 2007, the City received 7 proposals under the commercial technology category. Proposed technologies included mechanical, biological, and thermal technologies employing automated and manual sorting, anaerobic digestion, composting, advanced thermal recycling (second generation waste-to-energy technology), and gasification.

Table 1 - Summary of companies that submitted proposals under the commercial technology category and were deemed responsive.

Number	Company Name	GFE: Pass / Fail / Non-responsive
1	Covanta Energy Corp.	Non-responsive
2	CA Renewable Technologies LLC (CART, Arrowbio/CR&R)	Pass
3	Community Recycling	Pass
4	Green Conversion Systems (formerly WRSI)	Pass
5	Interstate Waste Technologies (IWT)	Pass
6	Urbaser & Keppel Seghers (base and alternative)	Pass
7	Wheelabrator Technologies Inc.	Pass

From February 26 to 28, 2008, the City conducted interviews with all qualifying proposers. The presentations were part of the evaluation process, and were attended by staff from the Mayor's Office, City Council, and Bureau, as well as technical consultants, technical advisors, and members of the Evaluation Panel. The Evaluation Panel is comprised of experts from academia, industry, and City staff.

In the summer of 2008, a City delegation (composed of Councilman Smith; Council Deputies from CD 6, CD 11 and CD 12, Mayor's Office staff, Bureau staff and consultant staff from HDR Engineering Inc. (HDR) visited several reference facilities in Europe, Japan, Israel, Canada, and the United States, to evaluate and determine the applicability of the technologies to the City of Los Angeles' black bin waste stream.

On June 1, 2009, the Board deemed the proposers that failed to pass the Good Faith Effort non-responsive as shown in Table 1. In addition, the Bureau received approval from the Board to short-list proposals that warrant further evaluation. Table 2 below lists the four (4) short-listed commercial proposals (in alphabetical order). The Board also authorized the Bureau to continue with further evaluation concerning the financial impacts to the short-listed proposals in light of the Permit Moratorium by the South Coast Air Quality Management District (SCAQMD), and the current global financial and credit situation, and reassess the impacts (if any) on the proposed service fee.

Table 2 - Summary of the short-listed commercial proposals

Number	Company Name
1	CA Renewable Technologies LLC (CART, Arrowbio/CR&R)
2	Green Conversion Systems (formerly WRSI)
3	Urbaser & Keppel Seghers (base and alternative)
4	Wheelabrator Technologies Inc.

On June 23, 2009, the Bureau mailed each of the four (4) short-listed proposers a request for additional information (RFAI) concerning impacts of the Permit Moratorium by the SCAQMD and the current global financial and credit situation on their proposed financial and business arrangement, and the impacts (if any) these changes would have on their proposed service fee. In addition, Bureau staff provided the short-listed proposers with a copy of the landfill diversion calculations, financial calculations, and air emissions calculation data performed by HDR. The City offered to meet with each of the proposers should they have questions.

From July 22nd to 27th, 2009, the Bureau, as requested by the proposers, conducted clarification meetings. The Bureau met with three proposers; CART, GCS (formerly WRSI), and Urbaser & Keppel Seghers. WTI did not request to have a clarification meeting.

On August 10, 2009, the Bureau received the proposers' responses to the RFAI. The Bureau provided the responses to HDR to review, analyze, and provide a technical report to the City's Evaluation Panel.

On September 25, 2009, HDR presented a summary of its technical analysis to the Evaluation Panel based on the RFAI responses to questions regarding service fee, environmental impacts, and business arrangements. This meeting also provided the opportunity for the Evaluation Panel to discuss and address any additional questions related to the proposers' responses.

On October 13, 2009, HDR presented a completed technical review and analysis of each proposal under the commercial technology category to the Evaluation Panel. The Evaluation Panel discussed the findings of the technical analysis including concerns related to the production and management of the by-products such as bottom ash, digestate and compost.

On November 09, 2009, the Board approved the Bureau's recommendation to negotiate with CART under the emerging technology category. The Bureau is currently undergoing contract negotiations with CART for the emerging scale facility.

Process for Evaluation of Short-Listed Proposals:

The Evaluation Panel consists of selected members from the Bureau of Sanitation, and the Department of Water and Power. It also includes experts in the field from the Los Angeles County Sanitation Districts, and the California Institute of Technology. The Evaluation Panel was provided technical assistance by HDR staff, and a technical support team comprised of City staff and outside technical experts.

Evaluation of Proposals – Commercial Technology Category

CA Renewable Technologies LLC (CART -300 tpd):

CART proposed to process 300 tons per day (tpd) of post-source separated municipal solid waste (MSW) by combining several processing technologies. The proposal included mechanical pre-sorting, wet separation, and two-stage anaerobic digestion. There is only one

operational reference facility that is processing the proposed tonnage. CART proposed a wet separation process to recover organic material to be processed through anaerobic digestion. Furthermore, CART proposed to site the facility outside the City of Los Angeles boundaries. CART is expected to comply with SCAQMD air emission permit requirements by implementing the best available control technology (BACT) for air emissions control and removal of air pollutants.

The proposal was evaluated based on the highest diversion rate, as determined by the technical consultant, assuming the digestate product is divertible and there is a high recovery rate of recyclables, but the proposal did not provide sufficient details to fully assess the service fee. CART presented a unique approach to processing MSW, but the reference facility visited did not provide adequate insight to the operation and engineering of the system on a commercial scale. The proposal also did not provide sufficient details to assess the pollutants of concern; however, HDR provided estimates based on the provided information and their best judgment. The proposal provided mitigation measures for other environmental impacts.

The proposer provided insufficient details on their proposed commercial scale facility in their response to the Bureau's RFAI dated June 23, 2009. Without detailed supporting financial data (capital cost, service fee breakdown, or defined capital funding sources) and emission information, HDR could not provide a complete review and analysis for CART's proposed commercial facility. HDR, however, utilized its expertise as well as those of the technical advisers and evaluation team members to estimate the emissions and service fee for CART's proposed commercial facility.

Green Conversion Systems (GCS, formerly WRSI):

Green Conversion Systems proposed to process 1,100 tons per day (tpd) of post-source separated municipal solid waste (MSW) through Advanced Thermal Recycling (ATR). ATR is commonly known in Europe, and for more than two decades has been used to produce energy from MSW. In addition, downstream processes recover metals from the bottom ash for recycling. The GCS proposal is expected to comply with SCAQMD air emissions permit requirements by implementing the best available control technology (BACT) for removal of air pollutants. In addition, the proposed project likely results in greenhouse gas emissions reduction as compared to landfilling disposal practice.

The proposal was evaluated based on its ability to provide the highest diversion rate if bottom ash is divertible and a service fee based on Net Present Value, (NPV), while presenting a proven and applicable technology for processing MSW as determined by the reference facility, a strong team to carry out the engineering and operation of the facility, an ability to market the by-products, and utilize the best available control technologies to mitigate environmental impacts.

Urbaser & Keppel Seghers Base Proposal and Alternate:

Urbaser & Keppel Seghers proposed to process 1,200 tons per day (tpd) of post-source separated MSW by combining a hybrid of mechanical, biological, and thermal processes. The proposal included mechanical pre-sorting, anaerobic digestion, digestate composting, waste to energy (only for base proposal), and gasification (for both base and alternate proposal).

Urbaser proposes to first remove recyclable materials from the MSW stream by pre-sorting and also produce compost from the organic material processed through the anaerobic digestion process, in addition to generating energy through the thermal treatment processes and recover metals from the bottom ash for recycling. An operating reference facility that contains all the components of this proposal is not currently in operation. However, a similar facility is currently being developed in Europe. A large number of reference facilities containing one or combinations of the proposed processes were available during the site visit.

The Urbaser & Keppel Seghers base and alternate proposals are expected to comply with SCAQMD air emission permit requirements by implementing the best available control technology (BACT) for air emissions control and removal of air pollutants. The proposals were evaluated based on a high diversion rate if bottom ash and vitrified ash (slag) is diverted, a service fee based on NPV, a hybrid approach to processing MSW as determined by the reference facilities, a strong team to carry out the engineering and operation of the facility, and the best available control technologies to mitigate environmental impacts. In addition, the use of alternative technologies proposed by Urbaser & Keppel Seghers to process MSW will likely results in lower greenhouse gas emissions as compared to landfilling disposal practice.

Wheelabrator Technologies Inc.:

Wheelabrator Technologies Inc (WTI) proposed to process 1,100 tons per day (tpd) of post-source separated MSW through Advanced Thermal Recycling (ATR). ATR is commonly known in Europe, and for more than two decades has been used to produce energy from MSW. In addition, downstream processes recover metals from the bottom ash for recycling. The WTI proposal is also expected to comply with SCAQMD air emission permit requirements by implementing the best available control technology (BACT) for air emissions control, and removal of air pollutants. In addition, the proposed project likely results in greenhouse gas emissions reduction as compared to landfilling disposal practice.

The proposal was evaluated based on a diversion rate if the bottom ash is divertible and a service fee based on NPV, a proven and applicable technology for MSW as determined from the reference facilities, a strong team to carry out the engineering and operation of the facility, an ability to market products, and provide the best available control technologies to mitigate environmental impacts. Additionally, WTI proposed an alternate site outside the SCAQMD.

Air Emissions Compliance

In considering any type of technology for the processing of residual MSW, particularly in the South Coast Air Basin, compliance with air quality standards is of particular interest. The RFP evaluation process took into consideration environmental impacts and proposed mitigation measures for air quality, water quality, and other possible issues (e.g., visual, noise, odors, etc.). In general, Green Conversion Systems (formerly WRSI), Urbaser & Keppel Seghers (base and alternative), and Wheelabrator Technologies Inc. proposed commercial technology facilities will be subject to stringent air quality standards imposed by the SCAQMD, the California Air Resource Board (CARB), and the US Environmental Protection Agency (EPA). SCAQMD is the local agency that has adopted its own rules and regulations to comply with State and Federal laws, and issues its own New Source Review or Prevention of Significant Deterioration permits to construct and operate facilities within their jurisdiction. In addition the

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Alternative Technology Facility must comply with all pertinent federal, state and local regulations including the SCAQMD's air quality standards, environmental documents required under the California Environmental Quality Act (CEQA) must be certified prior to SCAQMD issuance of a Permit to Construct.

CONCLUSION:

Based on the evaluation from the Evaluation Team of the four (4) short-listed vendors under the commercial scale category, the Bureau requests the approval from the Board to request a Best and Final offer from three (3) of the vendors that include: Green Conversion Systems, Urbaser & Keppel Seghers, and Wheelabrator Technologies Inc. to obtain the best terms and conditions pertaining to facility location, revenues from products and by-products, cost of residue disposal, sharing of Federal Production Tax Credits and other incentives, debt service, service fee, etc. In addition the Bureau is to review and verify the information obtained from those proposers that have not offered the cost of a pre-sorting system that will recover recyclable materials before the feedstock (black bin material) is processed through the processing systems. The pre-sorting system will help to recover recyclable materials such as paper, plastics, glass, and metals.

After receiving the additional information regarding the impact of adding a pre-sorting system to recover recyclables from the proposed system, the Bureau will review and analyze the information. In addition the Bureau will evaluate the cost of the proposals with and without the pre-processing system. After the evaluation of the Best and Final offer is conducted, the Bureau will return to the Board of Public Works with a recommendation to commence negotiations with the highest ranked proposer.

Based on insufficient technical and financial data provided by CART, the Bureau does not recommend authority to request any additional information nor a Best and Final offer from CART's commercial proposal.

Notification of Intent to Contract

The required Notification of Intent to Contract was filed with the CAO Clearinghouse on June 18, 2008.

Charter Section 1022

On August 4, 2008, the Bureau requested a Chapter Section 1022 determination from the Office of the City Administration Office (CAO). The CAO determined that the City employees did not have the expertise to perform the work.

Contractor Responsibility Ordinance

All contractors participating in this program are subject to compliance with the requirements specified in the City of Los Angeles's Contractor Responsibility Ordinance #173677, [Article 14, Chapter 1, Division 10, L.A.C.C.]. Failure to comply with the requirements specified in this ordinance will render the contractor's contract subject to termination pursuant to the conditions expressed therein.

Contractor Performance Evaluation

In accordance with Article 13, Chapter 1, Division 10 of the City of Los Angeles Administrative Code, the appropriate City personnel responsible for the quality control of this personal services contract shall submit Contractor Performance Evaluation Reports to the Bureau of Contract Administration (Department of Public Works) upon completion of this contract.

Other City Requirements

All proposers will be required to comply with the following City policies and requirements:

- Non-Discrimination/Equal Employment Practices/Affirmative Action
- Living Wage and Service Contractor Worker Retention Ordinances
- Equal Benefits Ordinance
- Business Tax Registration Certificate
- Child Support Obligations Ordinance
- Slavery Disclosure Ordinance
- Headquarters and Los Angeles Residence Information
- Americans with Disabilities Act
- Contract History
- Non-Collusion Affidavit
- Insurance and Performance Bond Requirements'
- Municipal Lobbying Ordinance

The selected proposer will be required to obtain a Business Tax Registration Certificate (BTRC). Attachments and forms pertaining to the requirements are included in the RFP.

Contract Administration

Responsibility for the administration of this contract will be with Solid Resources Support Services Division, Bureau of Sanitation.

FUTURE ACTION

The Bureau will return to the Board of Public Works (Board) with a recommendation to commence contract negotiations with the proposer that provides the highest rank best and final offer.

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Respectfully submitted,



ENRIQUE C. ZALDIVAR, Director
Bureau of Sanitation

Prepared by:
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213-485-3611

AS AMENDED*

ADOPTED BY THE BOARD OF
PUBLIC WORKS OF THE CITY
of Los Angeles, California

DEPARTMENT OF PUBLIC WORKS

BUREAU OF SANITATION
BUREAU OF CONTRACT ADMINISTRATION
JOINT BOARD REPORT NO. 1
JUNE 01, 2009

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Secretary

CD: ALL

AUTHORITY TO NEGOTIATE WITH THE SHORT-LISTED PROPOSERS FOR
DEVELOPMENT PARTNER(S) FOR PROCESSING MUNICIPAL SOLID WASTE
UTILIZING ALTERNATIVE TECHNOLOGIES PREMISED ON RESOURCE RECOVERY
FOR THE CITY OF LOS ANGELESRECOMMENDATIONS

1. Find that the following companies: Carbon Sequestration, Zia Metallurgical Processes, Inc., Covanta Energy Corp., and Rainbow Disposal failed to submit any Good Faith Effort documentation with their proposals; therefore, they are deemed non-responsive and should not be evaluated.
2. Find Wheelabrator's proposal for a gasification technology by Hitachi Zosen, in the emerging technology category, is only offered with the condition that Wheelabrator is selected by the City to develop the commercial facility; therefore, this proposal should not be evaluated.
3. Find the proposals from Community Recycling and Interstate Waste Technologies (IWT) under the commercial technology category and the Plasco Energy Group under the emerging technology category, are unable to demonstrate that the technology(ies) are capable of processing residential post-source separated municipal solid waste (MSW) similar to that of the City's "black bin" material. Therefore, these proposals are unwarranted for further evaluation.
4. Find the proposals received from Wheelabrator Technologies Inc., (for commercial technology) California Renewable Technologies LLC (CART), Urbaser & Keppel Seghers, and Green Conversion System (formerly WRSD) have demonstrated the capability of processing post-source separated residential municipal solid waste similar to that of the City's "black bin" material without auxiliary materials. This short-list of proposals warrants further evaluation.
5. Authorize the Bureau of Sanitation to request additional information from the four (4) remaining short-listed proposers (commercial and emerging) concerning the financial impacts to their proposed facility in light of the recent Permit Moratorium by the South Coast Air Quality Management District (SCAQMD) and the current global financial and credit situation.
6. Authorize the Bureau of Sanitation to negotiate with the four (4) remaining short-listed commercial scale category proposers to obtain the best and final offers.
7. Authorize the Bureau of Sanitation to negotiate with the remaining emerging technology category proposer (CART) to obtain the best and final offer.

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8. Direct the Bureau of Sanitation to return to the Board of Public Works within 60 days with the results of the further evaluation/and negotiations.

TRANSMITTALS

1. Copy of the adopted Board Report, dated February 05, 2007, authorizing the Bureau to Sanitation to distribute a Request for Proposal (RFP) for a Development Partner(s) for processing municipal solid waste utilizing alternative technologies premised on resource recovery for the City of Los Angeles.
2. Copy of the Inter-Departmental Correspondence, dated August 29, 2008, to the Bureau of Sanitation from the Office of Contract Compliance on submitted proposals.
3. Copy of the page of Wheelabrator's proposal with the Conditional Statement that the emerging proposal was viable only in the event that Wheelabrator was selected for the commercial facility.

EXTENUATING CIRCUMSTANCES

Basis for Extended Evaluation Time to Address Issues of Emission Reduction Credits and Financing:

The Bureau of Sanitation requires additional information to complete its evaluation on the commercial and emerging short-listed proposals received from the Request for Proposals for a Development Partner(s) for processing post-source separated municipal solid waste utilizing alternative technologies premised on resource recovery for the City of Los Angeles. The Bureau would like to request additional information from the proposers about:

1. Their financing options to develop the facility, taking into account the current global financial and credit situation; and
2. Their options to purchase emission reduction credits in light of the South Coast Air Quality Management District's Permit Moratorium.

In addition, the Bureau requests authority to negotiate with the four short-listed commercial proposers and the remaining emerging proposer to obtain their best and final offers.

Following the response from the vendors and the outcomes of the negotiation, the Evaluation Panel will finalize their evaluation and submit recommendations to the Board of Public Works.

Project Background:

The City of Los Angeles, Bureau of Sanitation (Bureau) divides the City into six watersheds for operational purposes. The City utilizes a four bin system to collect residential curbside solid waste from over 750,000 residences: green bin (green waste), blue bin (recyclables), brown bin (horse manure), and black bin (refuse). The material from the green bins, brown bins, and blue bins are recycled. 3,600 tons

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per day black bin material, also known as post-source separated municipal solid waste (MSW), is primarily landfilled; with less than 1% being processed at an alternative technology facility.

To reduce and eventually eliminate the City's reliance on urban landfills, Mayor Antonio Villaraigosa directed the Bureau to establish an alternative technology facility(ies) capable of processing post source separated MSW to assist with diverting materials from urban landfills and to help reach the Mayor's diversion goal of 70% by 2013. In addition, the Los Angeles City Council adopted the Recovering Energy, Natural Resources, and Economic Benefits from Waste for Los Angeles (RENEW LA) Plan, authored by Councilmember Greig Smith, as the blueprint to achieving zero waste within the City over the next 20 years. RENEW LA calls for the establishment of seven conversion technology facilities, with one located in each of the six wastesheds, and the seventh facility located in the local region.

On February 05, 2007, the Bureau released an RFP requesting proposals seeking a Development Partner(s) for both commercial facilities capable of processing 200 to 1,000 tons per day of residual MSW, and emerging facilities capable of processing up to 200 tons of residual MSW per day.

On March 7, 2007, the Bureau held a pre-proposal conference which was attended by approximately 75 individuals representing companies within the United States and abroad.

On August 22, 2007, the City received 13 proposals to build the City's first alternative technology facility. Proposals came from across the United States and abroad, including Canada, Germany, Israel, Japan, and Spain. Proposed technologies included mechanical, biological, and thermal technologies employing automated and manual sorting, anaerobic digestion, composting, advance thermal recycling (second generation of complete combustion technology), gasification, pyrolysis, and plasma arc gasification.

MBE/WBE/OBE Subcontractor Outreach Program

In order to be deemed responsive, the Proposers were required to comply with the MBE/WBE/OBE Subcontractors Outreach Program. The program required all respondents to perform and document their Good Faith Effort (GFE) as described in Appendix V of the RFP and credit was given on a PASS/FAIL basis. Failure to include the documentation of a GFE rendered the proposal non-responsive.

A review by the Office of Contract Compliance (OCC) of the GFE documentation that were submitted with the proposals, determined that four proposers failed to submit any of the GFE documentation, therefore OCC recommends that these proposals be deemed non-responsive (Transmittal 2). These proposers were informed of the OCC determination. In addition, the Wheelabrator emerging proposal was incomplete and was proposed with the condition/restriction (Transmittal No.3) that only in the event that Wheelabrator was selected by the City for the development of the commercial facility then, the emerging proposal would be discussed. The Bureau determined that the condition attached to Wheelabrator's emerging proposal was restrictive since it was unknown which proposal was to be selected. Therefore, Wheelabrator's emerging proposal was eliminated from the technical evaluation. Table 1 lists the companies that have passed the GFE and/or deemed eligible for further evaluation.

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Table 1 - Summary of companies that submitted a proposal and GFE status.

Number	Company Name	Commercial /Emerging	GFE: Pass / Fail / Non-responsive / Restricted
1	Zia Metallurgical Processes, Inc.	Commercial	Non-responsive
2	Covanta Energy Corp.	Commercial	Non-responsive
3	Carbon Sequestration	Commercial	Non-responsive
4	Rainbow Disposal	Commercial	Non-responsive
5	Interstate Waste Technologies (IWT)	Commercial	Pass
6	Green Conversion Systems (formerly WRSI)	Commercial	Pass
7	Community Recycling	Commercial	Pass
8	Wheelabrator Technologies Inc.	Commercial	Pass
9	CA Renewable Technologies LLC	Commercial	Pass
10	Urbaser & Keppel Seghers	Commercial	Pass
11	Wheelabrator Technologies Inc.	Emerging	Restricted/Incomplete (not evaluated)
12	Plasco Energy Group	Emerging	Pass
13	CA Renewable Technologies LLC (Arrowbio/CR&R)	Emerging	Pass

From February 26 - 28, 2008, the City conducted interviews of all qualifying proposers. The presentations were part of the evaluation process, and were attended by the Mayor's Office staff, Bureau of Sanitation Executive office and technical staff, City Council staff, City contracted technical consultants, technical advisors, and the evaluation panel. The evaluation panel is comprised of academia, industry experts, and City staff.

In the summer of 2008, the City delegation (composed of Councilman Smith; Council Deputies for CD 12, CD 6 and CD 11; Mayor's Office staff; Bureau staff and HDR engineering technical staff) visited several reference facilities in Europe, Japan, Israel, Canada, and the United States, to conduct a process evaluation and determine the applicability of the technologies to the Los Angeles wastestream.

On December 19, 2008, the Board executed Amendment I to the SWIRP Contract (C-111500) with HDR Inc. to evaluate and analyze the alternative technology proposals, conduct site evaluations for preferred sites, conduct public outreach, provide contract negotiation assistance, and provide initial regulatory permit assistance. The Bureau recognized the synergies between the Solid Waste Integrated Resource Plan (SWIRP) and the Alternative Technology Facility project, and HDR's in-depth knowledge of the engineering and technical understanding of alternative technologies. Therefore, to mitigate the lapse in project time, to meet the Mayor's and RENEW LA's time-aggressive goals, the Board approved the recommendation by the Bureau for the Alternative Technology Phase III scope, (Amendment to Contract No. C-111500), to be undertaken by HDR.

PROCESS FOR EVALUATION OF PROPOSALS

The Alternative Technology Team is comprised of the Evaluation Panel, HDR, Inc. (consultants), and a Technical Support Team comprised of City Staff and technical experts. The evaluation panel is composed of Bureau of Sanitation staff, staff from the Department of Water and Power, staff from the Los Angeles County Sanitation District and staff from the California Institute of Technology. The technical support team is composed of Bureau of Sanitation staff, industry expert and academia.

Preliminary Evaluation of Proposals and Short-listing of Proposals

The evaluation committee as well as HDR and the technical support team determined that unanticipated circumstances causing the current global economic crisis and changes in the ability to acquire emission reduction credits in the Los Angeles area (i.e., SCAQMD Permit Moratorium) have unfortunately impacted the evaluation of the proposals. The evaluation committee finds that these circumstances significantly affect the evaluation of the service fee, environmental impacts and overall implementation of an alternative technology(ies) facility for the City of Los Angeles. The evaluation committee, technical advisors, and Bureau management therefore agree that further inquiry of the vendors concerning the following items is necessary in order to conduct due diligence in reliably evaluating the proposed technology(ies):

- Changes in financing options
- Purchase and Availability of Emission Reduction Credits (ERCs)
- Impacts on proposed service fee

Furthermore, the evaluation panel has determined that Community Recycling, Plasco Energy Group, and Interstate Waste Technologies (IWT) proposals are found to be technically unviable based on the review of the vendor proposals, site visit evaluations, and technical memorandum proposed by HDR for the reasons presented below.

Contractor Performance Evaluation

In accordance with Article 13, Chapter 1, Division 10, of the City of Los Angeles Administrative Code (L.A.A.C), the Project Manager and the City Inspector for this construction contract shall submit Contractor Performance Evaluation Reports to the Bureau of Contract Administration upon completion of this contract.

Contractor Responsibility Ordinance

All contractors participating in this program are subject to compliance with the requirements specified in the City of Los Angeles' Contractor Responsibility Ordinance No. 173677 (Article 14, Chapter 1, Division 10, L.A.A.C.). Failure to comply with all requirements specified in the Ordinance may render this bidder's contract subject to termination pursuant to the conditions expressed therein.

Proposers Deemed Not-Viable

Community Recycling

Community Recycling proposes mechanical separation of the MSW into recyclables (29%), oversized (25%), and undersized (46%) material. In which oversized material are to be processed into biomass fuel through a thermal technology, and undersized material are to be processed through anaerobic digestion (biological technology). Through preliminary evaluation, the primary concern is that the proposal does not provide adequate documentation of Community Recycling's capability to operate an Anaerobic Digestion processing system for material similar to that stated in the RFP. In addition, the proposed reference facilities are demonstration or pilot scale sized systems that also do not operate on material similar to that stated in the RFP. The vendor's limited experience with Anaerobic Digestion is of great concern being that the proposal suggests a large fraction of the received MSW material (35%) will be processed through this technology. Therefore, the proposed design concept and design information is incomplete, lacking in demonstrated ability for best management practices for any generated waste or flexibility in the operation of their Anaerobic Digestion system. This proposal is unreliable for further evaluation.

Interstate Waste Technologies (IWT)

*IWT proposes the treatment of MSW through Pyrolysis/Gasification technology (thermal conversion) without requiring any pre-processing. Through preliminary evaluation, the proposal did not provide adequate proof to operate solely on MSW similar to that stated in the RFP. IWT recommended three reference facilities in Japan for the City to conduct the site visit. IWT specifically recommended the Chiba and Kurashiki facilities. IWT claims the Chiba facility processes feedstock consisting of MSW and industrial waste (IW), and the Kurashiki facility processes feedstock consisting of MSW, IW, and ash. The City visited the Chiba facility as the reference facility. During the site visit, it was noted that the Chiba facility was processing a combination of MSW and auxiliary materials (e.g., bales of plastic).

*In addition, the synthetic gas (syngas) generated at the Chiba reference facility is transported to a steel mill facility next door, and is enhanced with auxiliary fuel, such as coke oven gas, blast furnace gas, and natural gas prior to generating electricity. A demonstration test using an on-site 1.5-MW gas engine generator was performed using syngas generated from the Chiba facility. However, it was reported during the site visit that the use of the 1.5-MW engine was discontinued when the gas turbine maintenance costs caused by syngas impurities became prohibitively expensive. IWT has not provided data to demonstrate the ability to consistently produce the quality of syngas and utilize this syngas alone to produce the amount of power, as claimed in their proposal.

*Since the reference facility visited by the City does not operate on MSW alone, the claimed syngas production and subsequent energy generation, as well as the reported air emissions could not be verified. The proposal is not recommended for further evaluation.

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Plasco Energy Group

*Plasco Energy Group proposes Plasma Enhanced Gasification (thermal conversion) to treat MSW. This technology is proposed under the Emerging Technology category. Commissioning of the reference facility started in July 2007. The proposed facility first requires front-end removal of large items from the incoming MSW, then shredding the material prior to gasification and plasma refinement of the syngas produced. The syngas powers internal combustion engines to generate electricity.

*During the site visit in July 2008, certain parts of the system could not be started despite several attempts by the operators. Prior to the City's site visit, the vendor had not demonstrated to process more than 1000 tons in a twelve month period, subsequently, after the site visit the vendor submitted data to the City demonstrating that they had processed 1750 tons between January 2008 through February 2009. When operational, the facility has processed post recycled residential MSW, at times supplemented with reject plastic material from the curbside recycling program that is typically landfilled in Ottawa, Canada.

*The reference facility has experienced shutdowns to address engineering design issues. Noticeable improvements in operation at the reference facility have been demonstrated since the site visit and the technology looks promising for the future. However as of February 2009, there has been insufficient demonstration of operating the reference facility in its entirety to continue with further evaluation at this time.

Short-Listed Proposers and Basis for Further Follow-up/Negotiation

Tables 2 and 3 below list the four (4) short-listed commercial proposals (in alphabetical order) and the emerging proposal, respectively. The Bureau recommends to continue the evaluation process through further inquiries on the companies financing options to develop the proposed facility(ies), taking into account the current global financial and credit crisis, and the South Coast Air Quality Management District's Permit Moratorium on the availability of emission reduction credits. At the time the proposals were submitted, these issues had not occurred, however, they could now become significant to the overall evaluation of the proposals.

In addition, the Bureau requests authority to negotiate with the four short-listed commercial proposers and the remaining emerging proposer to obtain their best and final offers.

Following the response from the vendors to the City's questions and the outcomes of the negotiation, the Evaluation Committee will finalize their evaluation and rate the proposals.

Table 2 - Summary of the short-listed commercial proposals that merit further evaluation

Company Name
CA Renewable Technologies LLC
Green Conversion Systems (formerly WRSI)
Urbaser & Keppel Seghers
Wheelabrator Technologies Inc.

Table 3 - Summary of the short-listed emerging proposal that merit further evaluation

Company Name
CA Renewable Technologies LLC (Arrowbio/CR&R)

SCAQMD Permit Moratorium's Effect on the Alternative Technologies Project

In August 2007, the Natural Resources Defense Council, Communities for a Better Environment, Coalition for a Safe Environment, and California Communities Against Toxics filed a lawsuit against the South Coast Air Quality Management District (SCAQMD also herein referred to as District). The lawsuit challenged the adoption of Rule 1315, which tracks SCAQMD's internal credit bank and amendments to Rule 1309.1 (Priority Reserve), which also allowed electrical generating facilities to access Emission Reduction Credits (ERCs) in the SCAQMD's internal credit bank. In November 2008, the court ruled in favor of the environmental justice groups and invalidated the two rules until SCAQMD prepares a new environmental assessment under the California Environmental Quality Act. As the result of the court ruling, on January 9, 2009, the SCAQMD issued a memo imposing a moratorium on the issuance of permits to any facility that intended to obtain ERCs from the District's internal credit bank. SCAQMD will only be able to issue permits to facilities that have provided their own offsets in the form of ERC certificates or the facilities' maximum emissions are less than 0.5 pound per day for all non-attainment air pollutants and precursors including Oxides of Nitrogen (NOx), Oxides of Sulfur (SOx), Volatile Organic Compounds (VOCs), and Particulate Matter (PM).

The District has appealed the ruling and intends to re-adopt a credit tracking rule or other appropriate program to replace Rule 1315. If the rule or program is adopted, credits will again be available for facilities that rely on Rule 1315. However, this process will take at least nine to twelve months and possibly longer. The District has not yet determined an exact date on when this issue will be resolved.

In addition, although purchasing of ERCs in the open market is an option, availability of emission offsets for pollutants such as NOx and PM are limited, expensive, and very hard to acquire in the District. Not only would the Permit Moratorium increase the cost to purchase the needed ERCs, but emission offsets for certain pollutants might not be available at all. The District has illustrated that the estimated cost of ERCs from the open market for a landfill gas/renewable energy project with five turbines would be \$140,000,000. The emissions from the proposed Alternative Technologies facilities would likely result in acquisition of ERCs from the open market and the unavailability of one or more non-attainment air pollutants would put these facilities on hold as the District would require the facilities owners to provide their own ERCs prior to issuance of a permit to construct.

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Furthermore, while the outcomes of the appeal and the re-adoption of Rule 1315 are still undetermined, these have caused uncertainties in obtaining ERCs with regards to the cost and availability. Additional consideration based on the information from the vendors are needed in order to fully assess the impact of the cost of obtaining ERCs on the proposed service fee as well as the feasibility of constructing the proposed Alternative Technology facility(ies) in the Los Angeles air basin.

Global Financial and Credit Crisis Effect on the Alternative Technologies Project

The United States, California, Los Angeles City and the rest of the world have been experiencing a financial crisis in all sections of the credit markets. In the past year, many United States and international financial institutions have filed for bankruptcy, been bought, or have received federal loans to keep operating.

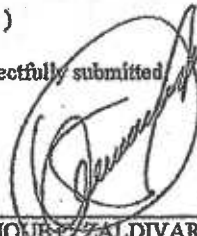
All of the short-listed proposers submitted a financial plan as part of the proposals for the development of an alternative technologies facility. All of the proposers, except for one, will have financial partners to finance the project. These financial institutions are to provide the projects' debt and equity. These financial partners are investment banks that have been affected by the current financial situation. It is, therefore, prudent for the City to verify if the proposers' financial partners are still capable of providing financial viability to this project.

FUTURE ACTION

The Bureau will return to the Board with the complete evaluation of the proposals and recommendation within 60-days of the adoption of this report.

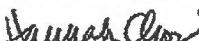
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Respectfully submitted,



ENRIQUE ZALDIVAR, Director
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