SALINAS VALLEY SOLID WASTE AUTHORITY
CONVERSION TECHNOLOGY COMMISSION

Agenda
Thursday, August 13, 2009
4:00 p.m.
128 Sun Street, Suite 201
Salinas, California 93901

I. CALL TO ORDER

II. ROLL CALL Commission Members: George Worthy, Presiding
Janet Barnes
Yolanda Teneyuque
Richard Ortiz

III. PUBLIC COMMENT - *Receive public comment from audience on items which are not on the agenda. Members of the public may comment on scheduled agenda items as the Board considers them. Speakers are limited to three minutes*

IV. Minutes of June 1, 2009 Meeting

V. JOHNSON CANYON RESOURCE MANAGEMENT PARK PROPOSALS EVALUATION

1. **Staff Report**
2. **Presentation by Vendors**
3. **Public Comment**
4. **Commission Discussion**
5. **Commission Action – Ranking of proposals**

VI. COMMISSIONER COMMENTS

VII. ADJOURNMENT

This agenda was posted at the Salinas Valley Solid Waste Authority office at 128 Sun Street, Suite 101, Salinas, CA on Friday, August 8, 2009. Staff reports for the Conversion Technology Commission meetings are available for review at 128 Sun Street, Suite 101, Salinas, CA 93901, Phone 831-775-3000 and at www.svswa.org

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in the meeting, please contact the Clerk of the Board at 831-775-3000. Notification 48 hours prior to the meeting will enable the Authority to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102-35.104 ADA Title II).

SALINAS VALLEY
SOLID WASTE AUTHORITY
Promoting the Environmental Health of the Salinas Valley

AGENDA ITEM NO. IV

CONVERSION TECHNOLOGY COMMISSION

Minutes of June 01, 2009 Meeting

I. CALL TO ORDER

The meeting convened at 5:10 p.m.

II. ROLL CALL

<u>The following Directors were present</u>:

City of Gonzales	George Worthy
City of Soledad	Richard Ortiz
City of Greenfield	Yolanda Teneyuque

<u>SVSWA Staff Members present</u>:

Patrick Mathews	General Manager/CAO
Susan Warner	Diversion Manager
Ernesto Natera	Administrative Assistant I
Michael Brown,	Consultant, by telephone
Mike Greenberg,	Consultant
Tom Bruen,	General Council, by telephone

III. PUBLIC COMMENT

None

IV. INTEGRATED BIOREFINERY GRANT OPPORTUNITES AND CONVERSION TECHNOLOGY STRATEGY

Diversion Manager Warner summarized the various grant opportunities to explore research, development and implementation of a pilot scale project for ethanol production using municipal solid waste after it has gone through the autoclave process. Commission Member Worthy commented that after visiting several sites around the world the autoclave system was the only one that really reduced waste effectively. General Manager Mathews stated that the autoclave system was the most feasible for reduction of waste.

The Commission concurred that if funded by the grants the Authority is seeking, a biorefinery be incorporated into the future conversion technology strategy.

V. JOHNSON CANYON RESOURCE MANAGEMENT PARK PROPOSAL UPDATE AND DETERMINATION OF VALUES FOR PROPOSAL EVALUATION CRITERIA

Diversion Manager Warner discussed the process of selecting a project based on ratings by Conversion Technology Commission (CTC) members, Authority staff, HDR staff and Authority Counsel as designated in the Request for Proposals (RFP). Warner mentioned representatives from two of the proposers were present (Urbaser and Plasco Energy Group). Greenberg presented himself and provided a summary of information acquired since the initial proposals were submitted and additional site visits were conducted for each vendor. Weighing criteria was discussed and values were assigned to each of the criteria published in the RFP.

Next Meeting was agreed to be on August 13, 2009

VI. ADJOURNMENT

The meeting was adjourned at 6:32 p.m.

Submitted By:

Ernesto Natera, Administrative Assistant I

SALINAS VALLEY SOLID WASTE AUTHORITY	ITEM NO. V

SALINAS VALLEY SOLID WASTE AUTHORITY

Report to the Conversion Technology Commission

Finance Manager/Controller-Treasurer

Tom Bruen by S.W.
Legal Counsel

General Manager/CAO

Date: August 13, 2009

From: Susan Warner, Diversion Manager
Michael Greenberg P.E., HDR Engineering, Inc.
Michael Brown, P.E.

Title: Johnson Canyon Resource Management Park Proposal Ranking

STAFF RECOMMENDATION

Staff recommends that the Commission determine the ranking of the proposals received and recommend to the Board of Directors commencement of negotiations with the two highest ranked vendors.

BACKGROUND

In 2005 the Board adopted goals of 75% diversion and 50+ years of recovery and disposal capacity for Authority landfills. Subsequently, long range planning for the Johnson Canyon Landfill shifted toward the development of a Resource Management Park (JCRMP). The Board further supported these efforts with the adoption of a Vision Statement in April 2009 which encourages 1) recovery of waste for its highest and best use; 2) transformation of the Authority's business from burying waste to utilizing it as a resource; and 3) eliminating the need for landfills.

The Conversion Technology Commission was formed on March 15, 2007 to investigate viable non-combustion technologies and focus on selecting a company that will be responsible for financing, designing, permitting, constructing and operating some or all of the JCRMP. Following the Request for Expressions of Interest process initiated in January 2008, through the most recent site visit in March 2009, the Commission has met intermittently to tour facilities and review submittals from the three vendors.

The Request for Proposals required detailed information on the technical, environmental and financial aspects, as well as a specific site plan, waste management system description, and project timeline. The use of multiple and complimentary technologies, such as a biorefinery, were encouraged in the RFP, and ethanol was mentioned as one of the green fuels that could be produced by the technology under consideration.

During its June 1, 2009 meeting, in accordance with Section 5 of the RFP, entitled "Selection Procedure and Criteria," the Commissioners assigned a value to each of the 9 criteria to be used to complete the evaluation and rank the proposals.

After receiving a report from staff concerning the grant opportunities available utilizing cellulose material processed by the CR3 autoclave and its potential as a feedstock for an ethanol biorefinery, the Commission concurred that an Integrated Biorefinery for ethanol production should be included in conversion technology planning should funding be secured. Each of the vendors was requested to identify how their proposed project could integrate with a pilot biorefinery facility and a commercial level plant.

DISCUSSION & ANALYSIS

To conclude its evaluation and ranking of the vendor's proposals, the CTC is being updated with a summary that includes the vendor's response to integration with an ethanol biorefinery facility, included as Attachment 1.

The criteria established as documented in the Request for Proposals issued May 19, 2008 and the weighting assigned at the June 1, 2009 meeting are presented in Attachment 4.

The selected vendor(s) will be required to complete a full permitting process including California Environmental Quality Act and Air District compliance. Exhaustive analyses of all issues in the Environmental Impact Report and assurance that all concerns are adequately addressed will be essential prior to proceeding with the project. This analysis will likely include a health risk assessment to identify if there are any unavoidable impacts from the proposed project. Further, the Vendor(s) must satisfy the Monterey Bay Unified Air Pollution District that facility emissions will meet California and local air quality standards or a permit will not be authorized. After the facility is built, the vendor will also have to demonstrate that the facility meets all of the regulatory agency requirements and performance guarantees before it is accepted. All of this will be done at the selected Vendor(s) expense.

FISCAL IMPACT

An analysis of service fees is presented in Attachment 2.

ATTACHMENTS

1. Summary of Vendor's integration with biorefinery
2. Summary of Service Fees
3. Summary of Evaluation Criteria
4. Combined Ranking of Proposals

Attachment 1

Salinas Valley Solid Waste Authority
Johnson Canyon Resource Management Park Proposals
Integration with a Biorefinery

In separate letters to each of the three (3) Conversion Technology vendors; Interstate Waste Technologies (IWT), Plasco Energy Group (Plasco) and Urbaser S.A. (Urbaser) dated June 26, 2009 from Authority staff, four (4) questions (exactly the same for all three vendors) relating to the integration of the Authority's proposed Biorefinery Project were asked. These questions included:

1. How do you see your proposed project integrating with the Biorefinery Facility?
2. Are there any potential "positive areas" that you and the Authority could take advantage of from integration of the Biorefinery Facility?
3. Are there any potential "negative areas" that you and the Authority may have to absorb from integration of the Biorefinery Facility?
4. Understanding your requirement for guaranteed annual tons, how can we best work together to make the commercialization of this plant integrate with your proposed project?

A summary of the responses from each of the three (3) vendors is presented below:

Interstate Waste Technologies (IWT)

Integration of the Project – could provide steam and electricity without the use of fossil fuels; could process un-reacted solids in the gasification system; could use biogas generated in the Anaerobic Digestion System in IWT's High Temperature Chamber to maintain the inert material melt or in our combustion turbine to generate electricity; could process MSW and agricultural waste destined for the Biorefinery during Biorefinery downtime; and could schedule IWT's waste processing module outages at times when agricultural waste is not produced.

Positive Aspects – could avoid the cost of building ancillary facilities for the pilot Biorefinery project which would become obsolete whether or not the commercial facility proceeds; could avoid the cost of building ancillary facilities such as a gasification plant, electricity and steam generating equipment and using fossil fuels for the commercial Biorefinery project; and provide a backup system to process MSW and agricultural waste if operation of the commercial Biorefinery is delayed or becomes uneconomical to operate due to reduced values of ethanol or technically unable to perform.

Negative Aspects – none, except the volume of waste the Biorefinery processes, which is discussed below.

Integration with the potential commercialization of the Biorefinery – IWT assumes that the commercial Biorefinery Facility would be available to process waste sometime in 2017 and that waste volume from the Authority's member cities will have grown. In addition, IWT proposes that they with the Authority will have more than eight years to acquire additional waste to offset the waste processed in the commercial Biorefinery; IWT states "if the only impediment to the Authority's selection of IWT is waste volume, IWT will modify our plant design (including the power plant system) to accept a lower volume of waste. This would slightly increase our projected Service Fee"; in addition, IWT commits to working with the Authority to identify the required quantity of waste to satisfy the capacity of IWT's proposed facility and the commercial Biorefinery Facility.

Plasco Energy Group (Plasco)

Integration of the Project – Plasco envisions: a single visitor's center that explains the transformation of Johnson Canyon Landfill to Johnson Canyon Resource Park and what environmental and economic benefits are being created at the site; a single front-end operation to remove recyclables from the waste stream; steam supply from Plasco to the Biorefinery; electricity supply from Plasco to the Biorefinery; vitrification into aggregate by Plasco of the heavy rejects and ash that would otherwise go to landfill; gasification of the residuals from the Biorefinery after drying, if required, from available low-grade heat; and a single water treatment facility for all operations that could supply clean water to the Biorefinery.

Positive Aspects – Plasco indicated that the integration of Plasco with a Biorefinery would create a resource park that is unique in the United States. The Authority would be the first in the United States to demonstrate the integrated conversion of waste into electricity, ethanol and biogas (while also producing energy from LFG). Therefore, the resource park would be a significant marketing benefit to all parties involved.

Negative Aspects – The assignment of tipping fees to cover operating costs for the Biorefinery must be understood. The Biorefinery proposal assumes that tipping fees will cover partial operating costs, which may include transportation costs to the Western Milling facility in Goshen.

Integration with the potential commercialization of the Biorefinery - Plasco's modular system design allows for flexibility when considering capacity. If desired by the Authority, Plasco could install its technology in phases: Phase 1, Technology Demonstration Phase, Plasco proposes to build a two module system that would process approximately 80,000 tons per year; Phase two, Technology Implementation Phase, would be the installation of the remaining modules required to process 165,000 tons per year; Phase three, Final Roll-Out Phase, would be the installation additional modules as required to fulfill the Authority's Master Plan.

Urbaser S.A. (Urbaser)

Integration of the Project – Urbaser recommends that the Biorefinery be sited at or adjacent to the JCRMP, and the following opportunities for integration of the proposed Biorefinery be considered, including: feedstock supply; utilities supply; advisory support; ownership participation; rejected materials processing; and by-products processing.

Positive Aspects – this project would give Urbaser the opportunity to learn more about a relatively new waste management technology, which could in the future replace some of the currently existing processes. If any of the Biorefinery feedstocks were considered acceptable, it could imply a simpler solution for the marketing of the compost generated and/or later processing of the organic fraction sorted within Urbaser's project. I t could also imply a simplification or reduction of the required treatment modules, resulting in a considerable economic saving in the planned Capital Costs. If the rejected materials (with the agreed conditions) were fed to the projected thermal process, this would imply a resulting increase in the power generation, and consequently a significant economic saving in the operating phase. If the biogas produced (with the agreed conditions) was fed to the projected engine generators, this would imply a significant economic saving in the operating phase. If the "brown liquor" produced was fed to the proposed anaerobic digestion unit, this would imply a resulting increase in the power generation and thus a significant economic saving in the operating phase.

Negative Aspects – one of the resulting byproducts of the Biorefinery Facility is ethanol a product which we have never marketed or dealt with before, and which could be a considerable challenge to our team. If the Biorefinery Facility was not able to attain the expected performance efficiencies, the overall project could end up not having the necessary capacity to process all the necessary streams if any resize or modification is made to Urbaser's original design. The acceptance of the different rejected materials or byproducts would depend on their characteristics and composition. It is possible that none of them could be acceptable to our processes and thus a complete management and or disposal solution would have to be arranged. The JCRMP parcel has a limited developable area, and locating both the Biorefinery and JCRMP Integrated Facility at this site will provide operating synergies, but may be challenging from a facility design, permitting and traffic flow standpoint. The Biorefinery may negatively impact the JCRMP Integrated Facility development schedule. To achieve the Authority's goal of 75% diversion in 2015 (with the Authority's Board now estimated to select a contractor in September 2009), we estimate needing to be at 50% design in April 2010 to support required permitting and construction schedules. The Biorefinery pilot study is not anticipated to be concluded until July 2013, making it difficult to incorporate the Biorefinery pilot study results into the JCRMP Integrated Facility design while meeting the Authority's primary goal of 75% diversion in 2015.

Integration with the potential commercialization of the Biorefinery - with respect to our requirement of guaranteed annual tons, Urbaser understands that, according to the Project Narrative provided and to our previous experience when dealing with processes of this nature, the more homogeneous the feedstock the better for the Biorefinery process; therefore, it will be a considerable advantage for both facilities and the integration of them if any of the three proposed products are accepted. The transportation and feeding of any of these products would be performed by means of conveyors. Depending on the requirements of the Biorefinery Facility, Urbaser could study and design either an automated feeding system or a buffer area upstream of the Biorefinery process. As it has been stated during the whole bidding process, Urbaser is and will be open for any further negotiations, and in this specific case, to research and study any other potential integration options raised by the Authority.

Attachment 2

Summary Comparison of Conversion Technology Service Fees

(Assumes all Costs Presented Include only Conversion Technology Service Fees; does NOT Include Other Authority Costs)

Salinas Valley Solid Waste Authority

August 2009

	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Authority Projected Disposal Tonnage [a]	187,000	189,700	193,494	197,364	201,311	205,337	209,444	213,633	217,906	222,264	226,709	231,243	235,868	240,585	245,397
Interstate Waste Technologies (IWT)						**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Annual Estimated Tonnage (tons/yr) [b]						269,775	269,775	269,775	269,775	269,775	269,775	269,775	269,775	269,775	269,775
Assumed Vendor Service Fee ($/ton) [b]						$ 69.32	$ 69.66	$ 69.99	$ 70.32	$ 70.63	$ 70.94	$ 71.23	$ 71.52	$ 71.79	$ 72.05
HDR Levelized & Adjusted Service Fee ($/ton) [c]						$ 173.77	$ 174.62	$ 175.49	$ 176.37	$ 177.27	$ 178.19	$ 179.13	$ 180.08	$ 181.06	$ 182.05
Plasco Energy Group (Plasco)						**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Annual Estimated Tonnage (tons/yr) [d]						166,310	166,310	166,310	166,310	166,310	166,310	166,310	166,310	166,310	166,310
Assumed Vendor Service Fee ($/ton) [d]						$ 70.00	$ 71.40	$ 72.83	$ 74.28	$ 75.77	$ 77.29	$ 78.83	$ 80.41	$ 82.02	$ 83.66
HDR Levelized & Adjusted Service Fee ($/ton) [e]						$ 104.28	$ 104.99	$ 105.71	$ 106.45	$ 107.20	$ 107.97	$ 108.75	$ 109.55	$ 110.36	$ 111.19
Urbaser S.A. (Urbaser)						**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Annual Estimated Tonnage (tons/yr) [f]						258,224	266,250	274,276	274,276	274,276	274,276	274,276	274,276	274,276	274,276
Assumed Vendor Service Fee ($/ton) [f]						$ 94.78	$ 98.55	$ 127.23	$ 130.34	$ 130.54	$ 133.82	$ 138.20	$ 140.66	$ 168.10	$ 171.46
HDR Levelized & Adjusted Service Fee ($/ton) [g]						$ 126.62	$ 124.06	$ 167.48	$ 168.67	$ 169.88	$ 171.12	$ 172.38	$ 173.66	$ 174.98	$ 176.31

[a] Authority projected disposal tonnage is based on actual data from FY 08-09, kept constant for FY 09-10 and then escalated at 2% per year thereafter.

[b] All figures are based on IWT's Base Proposal (using $0.104/kWh RPS Rate) as presented in economic pro forma included as Appendix #6 in May 2009 response and based upon other assumptions made through all submittals.

[c] All figures are based on IWT's assumptions and modified by HDR as appropriate to adjust & levelize the proposer's assumptions; used an annual 2% per year increase for escalation (except on debt service).

[d] All figures are based on Plasco's assumptions from proposal & subsequent submittals, including revised Form-D2 in May 2009 response. Assumed 2% annual inflation.

[e] All figures are based on Plasco's assumptions and modified by HDR as appropriate to adjust & levelize the proposer's assumptions; used an annual 2% per year increase for escalation (except on debt service).

[f] All figures are based on Urbaser's Phased Primary Solution as shown throughout submittals and in proposal of March 2009.

[g] All figures are based on Urbaser's assumptions and modified by HDR as appropriate to adjust & levelize the proposer's assumptions; used an annual 2% per year increase for escalation (except on debt service).

Attachment 3
Salinas Valley Solid Waste Authority - Summary of Evaluation Criteria for Proposals - August 13, 2009

Evaluation Criteria	Interstate Waste Technologies, Inc (Gasification)	PlascoEnergy (Plasma Arc Gasification)	Urbaser, S.A. (MRF/Anaerobic Digestion/Compost/WTE/others)
Qualifications	• IWT has not yet developed a project of this nature. • In operation for 18 years • Project team is comprised of 10 companies, which could be a lot for IWT to manage. • IWT and IBC are together considered the Contractor. All references to IWT should be considered to mean the combination of IWT and IBC. • IBC have been in project development business for 41 years. IBC is the largest shareholder in IWT.	• Plasco is a somewhat new company still in the demonstration stage and would have to expand their operations to the US. • In operation since 2003 • Project team is comprised of 4 companies : • PlascoEnergy Salinas Valley will be responsible for plant operation and maintenance and will be a subsidiary of PlascoEnergy USA. Neither PlascoEnergy Salinas Valley or PlascoEnergy USA exist today. • PlascoEnergy has been developing the plasma technology proposed for the JCRMP facility for over 20 years • PlascoEnergy is in the process of demonstrating the technology for commercial scale applications. • Team identified Clements Environmental to assist with regulatory compliance and permitting.	• Urbaser is the only company that has designed, built, and operated a waste management facility at commercial scale using MSW. • In operation for 18 years • Project team is comprised of 6 companies • Urbaser is a Spanish Company that is owned by Actividades de Construccion y Servicios (ACS) – the fourth largest construction group in the world. • Operates 60 MSW facilities which together process over 7 million tons MSW per year • Urbaser has designed, constructed and operated five facilities since 1995. • Has 15 anaerobic digesters in construction or operation phases.
Financials	**Financial Stability** • IWT is using IBC financial records as both listed as contractor. IBC claimed revenues of $8.8 million in 2007 (unaudited). • Anticipates about $52 million in projected revenues from other projects for '08-13. • IBC included unaudited financial records for 2005, 2006 and 2007 with letter from CFO of IBC that GAAP principles were used. • IBC's net operation profits/losses for 2005, 2006, & 2007 were about ,+3.6 million,+9.6 million, and -900k, respectively. **Financing Model** • Use 10% equity & tax exempt bonds to finance the 90% debt • Term of 30 years • Assumes a minimum debt service coverage ratio of 1.5.	**Financial Stability** • Cash & cash equivalents as of June 2008 was about $32.4 million. • Anticipates about $212 million in projected revenues from other projects for '08-13. • Included audited financial records for 2005, 2006 and 2007; no letter from CFO stating no financial change from audited statements. • Net operations loses for 2005, 2006, & 2007 were about -4.1, -7.5, and -18.4 million, respectively. **Financing Model** • Plasco will assume all debt using their own financial institution and providing performance bonds	**Financial Stability** • Generated 1.327 billion Euros from revenues in 2007; $880 million in financial capital (2007). • Anticipates about $11.3 billion in projected revenues from other projects for '08-13. • Included audited financial records for 2005, 2006 and 2007 with letter from CFO stating no financial change from audited statements. • Net operations profits for 2005, 2006, & 2007 were about 105, 117, and 133 million Euros, respectively. **Financing Model** • Use of 20% equity over a term of 20 years • Structured a minimum debt service coverage ratio of 1.2 • Anticipate a BBB rating
Technical	**Proposed Technology** • 7 facilities in Japan (not all using MSW for feedstock). BTU content of waste may be higher in Japan than in US. • IWT has not developed a facility using the Thermoselect technology. **Diversion** • Claim 100% diversion rate • If they cannot find a market for salt, sulfur and slag, diversion rate would be closer to 80%. **Facility Operation** • At least one of IWT's plants (Chiba) is having operational issues with compactor and stack-by-pass. They are burning supplemental fuel (kerosene) to operate. • Some operational issues with gasification process that may result in higher costs and fuel usage with lower availabilities.	**Proposed Technology** • Have not yet proven their system will function in full-scale commercial applications on MSW. • System proposed could only process 440 tpd of the Authority's waste **Diversion** • Claim 99% diversion rate • If they cannot find a market for salt, sulfur and slag, diversion rate would be closer to 80%. **Facility Operation** • Many of these systems have yet to be proven so there are currently many operational issues to be resolved.	**Proposed Technology** • All technologies are somewhat proven and have only a few operational issues • Some concern about odors from the Valorga anaerobic digesters. Odor issues will have to be resolved. **Diversion** • Claim 90% diversion rate for primary solution and 83% diversion rate for alternative solution • If they cannot market fly and bottom ash their estimated diversion rate is 78.94% **Facility Operation** • Facilities appear to operate well
Marketing	**Marketing Plan & Identify Markets** • Very short 2 page marketing plan in which they describe general markets for materials • Contacted some specific vendors for marketable materials and provided emails from correspondences **Ownership of GHG Credits** • 50% to IWT, 50% to SVSWA **Type of Contracts** • Do not want to enter into long-term contracts because of the market volatility. **Electricity Sales (assumed a sales price of $0.1043/kwh for 1st year - Base Case & $0.12915/kwh for 1st year - Alternative Case)** • Assumes gross generated = 43.2 MW, in-house use = 12.3 MW, net for sales = 30.9 MW **Availability** • 85.6% (7,500 hrs/yr)	**Marketing Plan & Identify Markets** • No specific marketing plan included, and did not identify specific markets for materials • Have identified general markets for materials (i.e. sulfur can be sold to farming co-ops and fertilizer companies) • Have considered prices for electricity, slag and sulfur. **Ownership of GHG Credits** • 75% to Plasco, 25% to SVSWA (for excess revenues only) **Type of Contracts** • Mentioned long-term slag contract **Electricity Sales (assumes a power price of $0.085/kwh)** • Assumes net generated power = 0.889 MWh/ton **Availability** • 91.6% assumed from financials	**Marketing Plan & Identify Markets** • Provided marketing plan • Identified specific markets for all products; even included a potential market for ash (probably not likely) • Have listed specific markets and contacts **Ownership of GHG Credits** • 20% to Urbaser, 80% to SVSWA **Type of Contracts** • Discussed tailoring contracts to the individual market **Electricity Sales (assumes $0.08/kwh for Non-RPS sales & $0.095/kwh for RPS sales)** • Base Solution gross power production for both phases = 154 GWh/yr • Alternative Solution gross power production for both phases = 136 GWh/yr **Availability** • 91% (8,0000 hrs/yr)
Environment & Community	**Emissions** • Projected emissions comparisons indicate meeting or being less than California BACT@ 15% O2 • Operational emissions presented from 7 Japanese facilities indicate that compliance with regulated limits should not be an issue, however Japan uses different measurements and scales and interpreting these emission factors may be an "apples" to "oranges" comparison • Company provided that these projected emissions will be guaranteed and worked out with the regulatory agencies **Sustainability** • Discussed green construction techniques • Are counting on the project producing renewable energy (remains to be seen with California's requirements) **Education and Outreach** • Participation in a "public outreach program" is mentioned in the Executive Summary, although it is not detailed later in the proposal. • Provided a public outreach video and presentation aimed at school children during the course of planning the Authority's Japan visit.	**Emissions** • Projected emissions comparisons indicate meeting or being less than California 40CFR60Eb protocol. Plasco will guarantee emissions to the California 40CFR60Eb protocol. • Greenhouse gas emissions reductions are overstated by about 30% due to assumptions of US emissions intensity rather than CA emissions intensity, and may be overstated further if electricity generation cannot meet expectations that are much higher than current operations. • Emissions measurements at the Ottawa plant have been below limits, only partial results of independent audit available for review **Sustainability** • Promote sustainability through diversion of waste, creation of cleantech jobs, generation of renewable energy, using LEED design, promotion of ecosystem conservation and restoration, etc. • Waste management system does little to maximize recycling and material recovery prior to gasification, which is less energy and carbon intensive on a life-cycle basis **Education and Outreach** • Will conduct public outreach and make available plant information including averaged weekly emissions data to the public on-line. • Will host outreach events prior to construction and after start-up.	**Emissions** • Projected emissions comparisons indicate meeting or being less than EPA standards and will guarantee emissions with lower levels expected • Note the proposed facility is expected to exceed the threshold for NOx, VOC & PM10, so the facility will therefore be required to offset these three emissions. The expected offset cost for all pollutants is $7,021,609 per year. **Sustainability** • Discussed sustainability in terms of waste diversion, waste reuse, generation of renewable energy, creation of "clean tech" jobs, green construction and operations techniques, ecosystem conservation and promoting a healthy natural habitat. Included green • Facility will be LEED Gold **Education and Outreach** • Currently operate an education facility in a number of their facilities. • Have not provided information on what would be included in their education curriculum.
Schedule	Reasonable schedule, but may have underestimated time for permitting	Reasonable schedule, but may have underestimated time for permitting	Reasonable schedule, but may have underestimated time for permitting
Costs	Middle	Lowest	Highest
Site Visits	• The Chiba, Japan facility appeared to require a lot of repairs. This was the first Japan facility built, so we expect newer facilities would have better availabilities. • Reported relatively low availabilities of 75%-83% (2 yr average), 86.1% (2-yr average), and 87.3% (5-yr average) for three facilities in Japan. • The Kurashiki facility appeared to be operating more smoothly on a combination of MSW and industrial feedstock. • The facilities might benefit from some up-front separation, instead of pushing everything into their compactor and then gasifying. • It appeared the facilities were having issues maintaining availability on MSW without supplemental fuel and high-BTU content fuel. Could be problem as SVSWA waste may have lower BTU content than Japanese waste.	• Plasco's Ottawa facility is currently permitted to operate at 94 tpd; it has only operated at levels ranging from about 10 to 70 tpd (on days it operates). It does not operate continually, as it is a demonstration plant that shuts down for periods to test components. • Plasco indicates that this is only a demonstration facility, but it needs to demonstrate that it can operate, economically and effectively at its limits • The plant has many components, all of which must operate in balance to obtain the claimed results. • There is an issue with scale-up and with meeting the needs of the SVSWA; they proposed only a 440 tpd solution.	• There are many different components that have to work in balance to obtain the results that Urbaser has proposed. • The Madrid facilities included many of these components and appeared to be operating efficiently and effectively. • Valorga anaerobic digestion process is still in question due to potential odors • Generation of ash for market is very different in their experience in Europe vs. the US where it is landfilled. • Barcelona anaerobic digestion process was very odorous & had some glass in their compost product which would decrease marketability of compost.
Overall Impression	**Pros** • Thermoselect technology is a somewhat proven technology, though waste stream in Japan is not the same as waste stream in Salinas and gasification of MSW at commercial levels has not been implemented in the US. • Moderate service fee (based upon IWT assumptions) **Cons** • IWT has never developed, designed, constructed, implemented or operated a Thermoselect gasification facility. • IWT has 10 companies on their project team. Will all these companies be able to fulfill their part and can they be effectively managed? • Some concern that the waste stream in Salinas will not have enough BTUs and the gasification will require auxiliary fuel. • Questionable whether any material by-products will be marketable except scrap metal & electricity	**Pros** • Plasco has raised a substantial amount of money in the last three years. • Plasco has the most modular system using 110 tpd modules; this will allow the Authority more flexibility in development of their overall waste system • Lowest cost (based upon Plasco assumptions) **Cons** • Plasco has never designed, constructed, or operated a commercial level facility processing MSW using their plasma arc gasification technology. There is some risk in choosing a company that has no track record. • PlascoEnergy has lost monies in operations for the past 3 years. • The technology has not been fully proven at commercial application levels at their demonstration plant in Ottawa, Canada, although according to data provided by Plasco in July 2009, their engines (that generate power) had run 37 of the last 40 production days (days tied to July '09 report date), however not at full capacity levels. • • Plasco has proposed to handle only 440 tpd, which is substantially less waste than the other contractors; unknown if their system could expand to accommodate 1,000 tons per day. •	**Pros** • Urbaser has proven their ability to develop and manage projects of this nature. Urbaser has designed, constructed, and is currently operating a number of similar waste management facilities. • The technologies Urbaser proposed are mostly proven technologies • Urbaser seems flexible and willing to work with SVSWA to come up with a waste management facility that meets the community's needs **Cons** • There are some concerns with the odors from the anaerobic digestion process • If Urbaser cannot find fly ash and bottom ash markets, their diversion will decrease and price increase. • Highest cost (based upon Urbaser assumptions)

ATTACHMENT 4
Salinas Valley Solid Waste Authority
Combined Ranking of Proposals

	EVALUATION CRITERIA	WEIGHTS	RANKING/SCORING								
			IWT			PLASCO			URBASER		
		Average Weight	CTC MEMBERS AVERAGE	STAFF RANKING AVERAGE	WEIGHTED AVERAGE	CTC MEMBERS AVERAGE	STAFF RANKING AVERAGE	WEIGHTED AVERAGE	CTC MEMBERS AVERAGE	STAFF RANKING AVERAGE	WEIGHTED AVERAGE
a	**Qualifications**										
	Relevant company qualifications and experience developing, constructing and operating solid waste facilities similar to those proposed. Thoroughness in addressing designated services coordinator, staff responsibilities, local resources, litigation history and environmental compliance.	13.625		**1.50**	**20.44**		**1.90**	**25.89**		**2.90**	**39.51**
b	**Financial**										
	Adequacy of Contractor's financial status and stability, and proposed financing plan.	9.125		**1.90**	**17.34**		**1.90**	**17.34**		**3.00**	**27.37**
c	**Technical**										
	Thoroughness of proposal in presenting all requested technical information. Assessment of current state of technology and its relationship to the proposed technology/project and its consistency with the Johnson Canyon site	21.125		**2.00**	**42.25**		**2.40**	**50.70**		**3.00**	**63.38**
d	**Marketing**										
	Adequacy of information provided on marketing plan, including identification of markets, pricing, terms, etc	3.625		**2.00**	**7.25**		**2.00**	**7.25**		**2.00**	**7.25**
e	**Environmental**										
	Level of potential environmental impacts from emissions and addressing of sustainability potential.	12.875		**1.50**	**19.31**		**2.30**	**29.61**		**2.40**	**30.90**
f	**Project Schedule**										
	Adequacy of Project schedule to understand the detailed steps and timeline of the Project including reasonableness of time to implement Project.	2.75		**2.20**	**6.05**		**2.60**	**7.15**		**2.10**	**5.78**
g	**Cost Proposal**										
	The Contractor's acceptance of the Authority's preferred financial arrangements and submitted rates and costs (fixed component, variable component, and pass-through component), relative to the cost proposals submitted. This includes Capital cost as well as Operations and Maintenance cost and projected revenue assumptions	27.5		**1.70**	**46.75**		**3.00**	**82.50**		**1.40**	**38.50**
h	**Forms**										
	Adequacy of completing required forms and reasonableness of the information provided.	1.75		**2.00**	**3.50**		**2.00**	**3.50**		**2.00**	**3.50**
i	**Site Visits**										
	The Authority and its technical consultants intend to visit and inspect reference facilities	7.625		**1.90**	**14.49**		**1.60**	**12.20**		**2.50**	**19.06**
	Totals	**100**			**177.38**			**236.14**			**235.25**