



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: May 13, 2008
TO: Mayor and Councilmembers
FROM: Environmental Services Division, Finance Department
SUBJECT: Evaluation Of Municipal Solid Waste Conversion Technologies

RECOMMENDATION: That Council:

- A. Receive the Evaluation of Municipal Solid Waste Conversion Technologies report, prepared for the City and County of Santa Barbara by Alternative Resources, Incorporated;
- B. Approve the proposed work plan and timeline for the completion of key steps required for the preparation and distribution of a request for proposals to the list of eight vendors recommended in the report; and
- C. Direct staff to prepare a letter to other jurisdictions in the County of Santa Barbara inviting their participation in a working group to be formed to complete the next steps required to prepare a Request for Proposals.

DISCUSSION:

Background

On October 16, 2007, the City Council and County Board of Supervisors approved a contract with Alternative Resources, Incorporated (ARI) to assist the City and County in evaluating the feasibility of siting a conversion technology (CT) facility on the South Coast. Such a facility would be capable of converting municipal solid waste (MSW) into a beneficial energy byproduct, significantly reducing the amount of MSW that is disposed at the Tajiguas Landfill. ARI is an independent consulting firm that has provided management, environmental, engineering and financial services related to MSW management for over 23 years. ARI is a recognized leader in evaluating and implementing conversion technologies nationwide, and is currently managing similar projects for the cities of New York and San Diego, Los Angeles County, and the Connecticut Resources Recovery Authority.

Summary of Draft Report Prepared By ARI

The report prepared by ARI incorporates the results of three distinct work efforts:

1. Refining Project Goals and Objectives,
2. Finalizing Evaluation Criteria (Applicable to Prospective Conversion Technology Vendors), and
3. Identifying and Evaluating Vendors Offering Conversion Technologies

The project goals, as refined, and evaluation criteria were developed by City and County staff, with input from ARI in December of 2007. On January 7, 2008 the goals and criteria were presented to the joint sub-committee of the City and County of Santa Barbara, made up of the three members of the City Solid Waste Committee, and two members of the Board of Supervisors. The joint sub-committee approved the project goals and evaluation criteria, to be used by the consultant to develop a short list of qualified vendors that could deliver a CT facility that meets the needs and objectives of the community. The project goals and evaluation criteria were also presented to, and approved by, the City Council on January 28, 2008. Between December 2007 and January 2008, ARI compiled a list of twenty-five (25) potential vendors. This list included vendors identified by the Multi-Jurisdictional Solid Waste Task Group (MJSWTG) in a previous feasibility study; vendors that have been considered in other studies to be among the more advanced of CT companies, or otherwise selected by other public agencies as qualified for project development activities; and companies for which there have been recent, known advancements for either the technology or the vendor's project team.

On February 6, 2008, ARI issued a Request for Information (RFI) to each of the twenty-five companies. Eleven responses were received, representing twelve (12) of the twenty-five companies that received an RFI.

Based on an analysis of the information received from the vendors against the project goals and evaluation criteria, as well as ARI's knowledge stemming from other recent evaluations of CT vendors, eight of the twelve were identified as qualified vendors for the purpose of receiving a more comprehensive request for proposal (RFP). These companies are listed below:

1. CA Renewable Technologies – CR&R / Arrow Ecology (Anaerobic Digestion)
2. Ecocorp (Anaerobic Digestion)
3. AdaptiveNRG (Thermal – Plasma Gasification)
4. International Waste Technologies (Thermal – Pyrolysis)
5. Interstate Waste Technologies (Thermal – Gasification)
6. Plasco Energy Group (Thermal – Plasma Gasification)
7. Tajiguas Partners (Thermal – Gasification)
8. Herhof California (Mechanical)

The eight vendors represent an excellent cross section of the various types of technologies considered to be the most advanced in converting municipal solid waste to fuel or energy, including anaerobic digestion, thermal and mechanical technologies.

The report prepared by ARI includes both summarized and detailed information of the process followed to develop the short list of qualified vendors, as well as detailed discussion and analysis for each of the vendors that responded to the RFI and the basis for their inclusion, or exclusion, in the final list.

A one-page executive summary of ARI's report is included as Attachment 1 to this report. The entire report is available at www.conversiontechnologystudy.com.

Next Steps – Proposed Work Plan and Timeline

In conjunction with ARI, City and County staff identified remaining work efforts required in connection with the issuance of an RFP, which are classified into the following broad areas:

1. Determining Roles & Responsibilities
2. Completing Public Outreach/Education
3. Completing Requisite Technical Studies
4. Finalizing Key Elements of Request for Proposal

The above four critical steps will ensure a quality RFP and will take considerable time and effort to complete. Based on the estimated time to complete these steps, we anticipate the issuance of an RFP in December 2008.

Determining Roles & Responsibilities (May – July) – This is the first step and perhaps the most complicated. It involves determining the level and nature of participation of other jurisdictions in the county, including the cities of Solvang, Goleta, Buellton, Carpinteria, in addition to the Goleta Sanitation and Montecito Sanitation Districts. While the City and County's waste streams would provide an adequate volume of MSW for the purposes of moving forward with a project, identifying other partners that are willing to make a preliminary commitment to this project will serve to strengthen the RFP. This step also includes deciding the method of ownership, financing and governance of the facility.

During this period, staff proposed the formation of a working group made up of staff and elected officials of any and all interested jurisdictions. The City's Solid Waste Committee and two members of the County Board of Supervisors making up the joint sub-committee on solid waste have requested to be part of that working group, along with City and County staff. Other jurisdictions have been informally invited.

Completion of Public Outreach (May – June) – Between November 2007 and February 2008, City and County staff presented information on the CT study being undertaken to over twenty local environmental organizations, business groups, other jurisdictions, and other community groups. Overall, the organizations were supportive of the project.

However, as the project moves closer to the issuance of an RFP, it will important to seek additional input from the community. Therefore, City and County staff will continue to meet with key community organizations and conduct public forums (workshops) to give the public an opportunity to learn more about the project and to provide staff with comments, concerns and feedback.

Completing Technical Studies (August – October) – Beginning in August, once staff has received final direction from the City Council and Board of Supervisors to move forward with finalizing the RFP, staff will initiate the required technical studies. This includes a site evaluation study at Tajiguas Landfill to determine its suitability for accommodating a CT facility; and an updated waste characterization study to establish more precise data as to the composition and mix of the waste stream that is currently landfilled at Tajiguas.

Finalizing Key Elements of the Request for Proposals (August – November) – During this time, the final and key elements of the RFP will be developed. If necessary, staff will also hire outside legal counsel to assist in the development of the technical terms and conditions that will be included in the RFP. As the technical studies are completed, this data will be incorporated into the RFP as well.

In addition to key terms and conditions, design and performance standards will be developed and finalized. This will be an important step and part of the RFP since the RFP will not establish technical requirements or specifications; instead, specific design and performance standards will be identified and used to evaluate the proposals received in response to the RFP.

Review and Consideration by Joint Committee on Solid Waste

On April 9, 2008, the draft report prepared by the consultant and the proposed next steps were presented to the City Council Solid Waste Committee at a joint meeting that included two members of the County Board of Supervisors. At that meeting, the consultant presented in detail the approach and methodology used to identify and screen potential vendors to develop a short list of qualified vendors that will receive a request for proposal. The joint committee approved both the recommended list of qualified vendors and the timeline for completing the remaining steps related to the preparation of a request for proposal.

Summary

One of the key steps in this RFP phase was to establish a list of qualified vendors that would receive a formal RFP. The information provided by the vendors during the RFI phase was solely to develop this short list.

With the list of vendors now identified, the next steps include deciding on the form of ownership/governance and financing, what agencies will be included as partners for purposes of preparing the RFP, completing the public outreach and education effort, and completing the required technical studies. All of these efforts are essential to preparing a quality RFP, which will in turn ensure that we receive quality responses from the vendors.

BUDGETARY INFORMATION:

There is no budgetary impact in fiscal year 2008, as funds are already approved and appropriated to fund the costs for ARI, the consultants assisting City and County staff with the project. In fiscal year 2009, funds are included in the recommended budget to cover a portion of the City's share of the costs for the technical studies and other professional services that may be needed. By September 2008, staff will bring the contracts associated with these efforts to the City Council for approval and, if necessary, will include a request for additional appropriations.

SUSTAINABILITY IMPACT:

At this point, the scope of the project is limited to determining the feasibility of installing a facility at the Tajiguas Landfill that employs CT to increase solid waste diversion. If the project moves forward, the end result will not only include a significant reduction in the volume of municipal solid waste going into the local landfill, but it will also result in the ongoing production of an alternative energy source created from processing the material through a CT facility.

The Evaluation of Municipal Solid Waste Conversion Technologies Report Prepared for the City and County of Santa Barbara, dated April 4, 2008, is available in the Mayor and Council's Office and City Clerk's Office.

ATTACHMENT: One-Page Summary of the Evaluation of Municipal Solid Waste Conversion Technologies Report

PREPARED BY: Robert Samario, Assistant Finance Director

SUBMITTED BY: Robert D. Peirson, Finance Director

APPROVED BY: City Administrator's Office

**Evaluation of Municipal Solid Waste Conversion Technologies
Prepared for the City and County of Santa Barbara, California
April 4, 2008**

The City and County of Santa Barbara, California, have completed an evaluation of municipal solid waste (MSW) conversion technologies. The evaluation process included adopting goals and evaluation criteria; identifying conversion technology suppliers; issuing a Request for Information (RFI); and applying the evaluation criteria to determine a short-list of companies that are best suited for providing a conversion technology project as an alternative to landfilling MSW at the Tajiguas Landfill. The evaluation process and findings are summarized in the report "Evaluation of Municipal Solid Waste Conversion Technologies" (Alternative Resources, Inc., April 4, 2008)

The evaluation process has established an interest from technology suppliers and project developers in a conversion technology project for Santa Barbara. Eleven responses to the RFI were received, including responses for three anaerobic digestion technologies, seven thermal processing technologies, and one other technology incorporating biological drying and mechanical sorting. Eight of the technologies have been determined to meet the criteria adopted by the City and County, and offer the potential for a technically and economically viable conversion technology project for Santa Barbara (see Table 1). These eight companies are recommended for further consideration should the City and County decide to continue the procurement process with development of a Request for Proposals (RFP).

Based on an evaluation of the information submitted, other publicly available information, and market interest demonstrated by response to the RFI, issuing an RFP for a conversion technology project is reasonable for consideration of alternatives to landfilling MSW at the Tajiguas Landfill. The number of companies included on the recommended shortlist (eight) and the variety of technologies these companies offer should enable a competitive procurement process. Should the City and County decide to proceed with an RFP, it should include a formal request for qualifications as well as technical and price proposals.

Table 1. Recommended Short-List (Unranked - Listed Alphabetically by Type of Technology)
<u>Anaerobic Digestion</u> CA Renewable Technologies - CR&R/Arrow Ecocorp
<u>Thermal Processing</u> AdaptiveNRG (Plasma Gasification) International Environmental Solutions (Pyrolysis) Interstate Waste Technologies (Gasification) Plasco Energy Group (Plasma Gasification) Tajiguas Partners - WTE/Entech (Gasification)
<u>Other Technology</u> Herhof California (Biological Drying/Mechanical Separation/Off-Site Combustion)