



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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TO: Each Supervisor

FROM: Gail Farber *Gail Farber*
Director of Public Works

**BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: APRIL 2012 THROUGH OCTOBER 2012 UPDATE**

On April 20, 2010, the Board unanimously approved Memoranda of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for the demonstration and commercial phases of the Southern California Conversion Technology Demonstration project to solid waste alternatives to landfills within Los Angeles County.

At that time, the Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within Los Angeles County, and to report back to the Board within six months. In October 2010 Public Works submitted a preliminary siting assessment in response to this request and committed to providing the Board with a status report on our efforts every six months.

The attached status update summarizes the efforts Public Works has undertaken to advance conversion technology development in Los Angeles County during April 2012 through October 2012. Highlights from the last six months include:

- Coordination of and participation in educational meetings between key Sacramento regulatory agencies and a stakeholder delegation of jurisdictions, utilities, and environmental groups. These meetings were convened to discuss Statewide regulations, project efforts, and various benefits of conversion technologies.

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- Continued provision of technical and planning services to potential County-based conversion technology projects. Several projects have made significant progress, and two cities (Glendale and Avalon) have released requests for proposals.
- Participation in the stakeholder process for development of CalRecycle's report to the State legislature on how to achieve the State's 75 percent recycling goal. The recommendations thus far developed have the potential to significantly impact solid waste management in the State, including conversion technology development.
- Unanimous adoption of Supervisor Knabe's September 25, 2012, conversion technology motion. As requested by the Board, this report includes a summary of priority next steps that Public Works will pursue to implement this motion.

Public Works will continue to work with stakeholders to move forward with project development activity at the sites selected within the County. Our next status report will be submitted to your Board by April 20, 2013.

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Attach.

cc: Chief Executive Office
County Counsel
Department of Public Health
Department of Regional Planning
Los Angeles County Integrated Waste Management Task Force
Regional Planning Commission
Sanitation Districts of Los Angeles County

BOARD MOTION OF APRIL 20, 2010, ITEM 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: APRIL 2012 THROUGH OCTOBER 2012

1 Introduction

On April 20, 2010, the Los Angeles County Board of Supervisors (Board) unanimously approved Memoranda of Understanding (MOUs) to develop three demonstration conversion technology projects as part of the Southern California Conversion Technology Program. The purpose of the Program is to encourage the development of conversion technologies as alternatives to landfills for the management of solid waste in the County. Board action on April 20, 2010, also awarded a contract for consultant services for the Program's demonstration and commercial phases. The Board also approved a motion instructing the Director of the Los Angeles County Department of Public Works (Public Works), in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills and to identify other potential facility sites within Los Angeles County. The motion further directed Public Works to report to the Board in six months with its findings.

In October 2010 Public Works submitted a Preliminary Siting Assessment to the Board identifying potential project sites proposed by eleven municipalities and nine private companies. Since that time, Public Works has worked with interested stakeholders to evaluate additional possible project locations within the County.

Public Works prepares a status report every six months to regularly inform the Board of conversion technology project developments. This report provides a summary of key accomplishments from April 2012 to October 2012 that advance the development of conversion technology projects in the County.

2 Project Background

For over a decade, Public Works has evaluated and promoted the development of conversion technology facilities as an alternative to the landfilling of solid waste by the County's municipalities and communities. In addition to diverting solid waste from landfill disposal, such facilities produce renewable energy (whether electric, or as gaseous or liquid fuels), reduce environmental impacts, and create local green-collar jobs. Together with technical and public outreach consultants, Public Works has vetted various non-combustion thermal, biological, chemical, and mechanical conversion technologies, assessed potential project sites, worked with local and State agencies to create a permitting pathway for the technologies, and created a Countywide public outreach plan to educate stakeholders about the benefit of these technologies.

3 Conversion Technology Legislation

Several key developments have taken place over the last six months that have brought the topic of conversion technology regulations to the forefront of State and local policy discussions.

Existing California statutes and regulations offer an assortment of definitions and requirements regarding conversion technologies. Current definitions lack a scientific basis and are therefore inconsistent, with some conversion technologies defined as incineration, others defined as composting, one technology (gasification) defined incorrectly, and many technologies simply undefined, creating uncertainty for permitting and making it challenging to obtain financing for new projects.

A tipping point occurred in May when the California State Department of Resources Recycling and Recovery (CalRecycle) made the decision to rescind their previously issued determination that the first thermal conversion technology project in California, proposed by Plasco Energy in Salinas Valley, was a “gasification” project as defined in Statute. The previous determination allowed the project to obtain precertification from the California Energy Commission (CEC) as a renewable energy generating facility and thus eligible for credit under the State’s Renewable Portfolio System (RPS).

On June 1, 2012, following strong concerns from Plasco and other stakeholders regarding CalRecycle’s action, Governor Brown’s office sent a follow up letter to Plasco stating *“the Governor’s Office will be supportive of legislation during the current session to allow Plasco’s project to proceed on a pilot basis and be considered an eligible renewable energy resource under State law. In addition, we fully support CalRecycle’s efforts to develop alternative policies regarding waste to energy in California, including developing a technology-neutral, feedstock-based performance standard that could eventually be used in place of the definition of gasification for determining RPS eligibility.”*

Unfortunately, Plasco could not find a legislator willing to sponsor legislation prior to the end of the legislation session. As a result, in late August 2012, Plasco suspended all activities related to the development of their gasification project in Gonzales, California, and instead are pursuing projects outside of California.

The issue of addressing these outdated regulations and the risk and uncertainty they create for project developers became the focus of the Los Angeles County Board of Supervisors’ recent motion, as described below.

3.1 September 25, 2012, Motion by Los Angeles County Board of Supervisors

On September 18, 2012, Supervisor Don Knabe introduced a motion for consideration at the September 25, 2012, Board meeting by saying, “Conversion technologies are critical to ensuring the County’s ability to manage its waste in the future, thereby protecting public health and safety, and the environment, yet many companies have decided not to pursue projects here due to uncertainty created by California’s outdated

regulations". On September 25, 2012, the Board of Supervisors unanimously approved the motion, directing Public Works, in conjunction with the Chief Executive Office, to work with the Sanitation Districts of Los Angeles County and other key stakeholders to:

- Actively pursue and support the passage of State and Federal legislation and regulations that would establish a clear pathway to encourage the development of conversion technologies; including clarification of the definition of conversion technologies and ensuring they qualify for appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low carbon fuels.
- Support legislation to provide renewable energy status and to continue to provide diversion credits and other incentives for energy production at existing facilities in Los Angeles County that generate energy from waste.
- Outreach to State agencies and other stakeholders to share information on the technical performance and multi-faceted benefits of conversion technologies, such as their role in meeting the solid waste management needs of local jurisdictions, producing green fuels, and reducing greenhouse gas emissions.
- Work with conversion technology companies to identify potential regulatory changes that are necessary to streamline the permitting process to allow conversion technology facilities to flourish in California, while complying with California's strict environmental standards.

To implement this motion, Public Works will coordinate with other relevant stakeholders, as described above, to advance the County's legislative agenda and carry out each aspect of the motion. Specifically, the table below provides a summary of the key activities Public Works will pursue as well as timeframes for each item:

Action	Time Needed to Implement
Work with the County's legislative advocates in Sacramento and Washington, D.C. to identify opportunities to sponsor or support legislation.	Within 6 months of this Report
As appropriate, meet with key legislative staff to garner support for legislation.	Ongoing
Coordinate with CalRecycle and other State regulatory agencies to share technical information regarding conversion technologies and pursue updated regulations and legislation.	Within 6 months of this Report
Host workshops and tours to promote awareness among stakeholders.	Within 6 months of this Report
Communicate with conversion technology developers, through an online survey, direct outreach, and other mechanisms, to identify changes and incentives needed to move conversion technologies forward. This would include companies with projects in development in other States.	Within 6 months of this Report
Continue public education efforts, including presentations, educational booths at conferences and schools, and print media.	Ongoing

4 Other Regulatory Issues

4.1 2012 Bioenergy Action Plan

Governor Brown's 2012 Bioenergy Action Plan (Action Plan) is a coordinated action plan by a number of State agencies that describes common strategies and objectives to increase development of renewable energy derived from organic waste. The Action Plan also acts to preserve California's environmental health, to reduce waste, encourage green jobs and economic development, and to strongly encourage development of alternatives to reliance on landfills, incineration, and fossil fuels. The Action Plan advances the development of cost-effective biofuels and renewable electricity, the commercialization of successful new technologies, the streamlining of regulatory and permitting processes for project development, and the quantifying and monetizing of bioenergy benefits.

The long-term objective of the Action Plan -- to create a competitive bioenergy market in California, including biopower, biofuels, and biogas, closely aligns with the goal of the County's conversion technology program to convert household trash into renewable energy, biofuels, and other useful products. The Action Plan's near-term objectives listed below also align with the goals of the County and the Los Angeles County Solid Waste Task Force, including supporting further clarification and streamlining of State goals, performance standards, terminology, and incentives for conversion technology development.

- The Action Plan's near term objective to codify legislation and issue executive direction for increased biomass use through bioenergy development is consistent with support in the County's legislative platform for legislation to develop renewable energy through conversion technologies. The County's legislative platform further supports legislation designating all energy produced by conversion technologies as renewable energy.
- The Action Plan's objective to facilitate growth of California's bioenergy industry by streamlining and clarifying the regulatory and permitting process for project developers and permitting officials is also a primary goal of the County's conversion technology program. The County's legislative platform also supports a technology-neutral permitting process based on performance standards.
- The Action Plan's goal of front-end processing standards to ensure that recyclables are removed prior to bioenergy production is supported by the County's legislative platform. However, the County's legislative platform also presses for clarification of overlapping solid waste and recycling authority, and a greater emphasis on waste diversion program implementation rather than quantification and measurement.

- The Action Plan seeks to allocate funding from the Electric Program Investment Charge and Low Carbon Fuel Standard towards encouraging bioenergy development in the State. The County's legislative platform supports increased funding for research and development of conversion technology projects.

4.2 AB 341 Regulatory Process and Potential Impacts on Conversion Technology Development in California

On May 9, 2012, CalRecycle released a white paper entitled "California's New Goal: 75 percent Recycling" to meet the State's 75 percent recycling, composting, and source reduction goal by 2020, as mandated by Assembly Bill 341 (AB 341, 2011 Statutes). Following stakeholder review and input, this white paper will be developed into a Report to the Legislature and submitted by January 1, 2014. In order to meet the State's goal of 75 percent recycling, composting, and source reduction by 2020, CalRecycle has outlined monumental structural and legislative changes to the way solid waste has been managed in California for the last several decades.

One of the concerns regarding AB 341 is that it specified only source reduction, recycling and composting as options for achieving the stated 75 percent goal. Using this narrow definition, it would be very challenging and costly for the State to reach the 75 percent goal without including conversion technologies. Although one of the key policy drivers highlighted in the white paper was to "reduce dependence on oil by increasing in-State production of bioenergy/biofuels," there was no mention of conversion technologies in the white paper's 10 implementation concepts. Excluding conversion technologies from the 75 percent goal not only makes it more difficult to achieve the goal, it also limits conversion technology facilities to receiving only the remaining 25 percent of the wastestream as feedstock. The white paper also indicates that, prior to conversion or other beneficial use, materials in the "other 25 percent" would need to be further processed to separate *additional* recyclables from the waste stream. This issue will require continued stakeholder involvement to ensure the net result does not create even more barriers to the adoption of conversion technologies in the State.

In May Public Works participated in a workshop hosted by CalRecycle, following up with a detailed comment letter on June 27, 2012, outlining this concern as well as others regarding the white paper. Subsequent discussions have taken place between Public Works and CalRecycle. CalRecycle hosted another workshop on September 19, 2012, regarding "the other 25 percent" and what performance standards might be used to maximize recovery of materials for recycling prior to conversion or disposal.

5 Public Outreach

In May 2012 Public Works' public outreach team and a delegation of jurisdictional, utility, and environmental representatives participated in meetings with the following key decision-makers in Sacramento:

- Carla Peterman, Commissioner of California Energy Commission (CEC)
- Caroll Mortensen, Director of CalRecycle
- Mary Nichols, Chair of the California Air Resources Board
- John Laird, Secretary of the Department of Natural Resources

The purpose of these meetings was to introduce several California-based projects to the agency representatives, discuss the various environmental and economic reasons stakeholders support conversion technologies, and identify key barriers that are currently presenting challenges towards successful implementation. Specific definitions in State Law continue to be problematic to the development of projects because they are scientifically inaccurate. A majority of the agency representatives acknowledged this issue needs to be addressed. Two other key points were discussed at these meetings: 1) criteria needed in order for conversion technology facilities to be able to receive renewable energy credit under the Renewable Portfolio Standard, and 2) what feedstock will qualify as renewable.

Stakeholder workshops relating to the implementation of the State's 75 percent waste reduction, recycling, and composting goal may be helpful in addressing these points, as well as the release of the Governor's 2012 Bioenergy Action Plan which is described in greater detail below.

Over the last six months, Public Works' outreach team, continued to be focused on public and private stakeholder outreach, primarily working with stakeholders at the State level to advance statewide policy conversations that would impact projects in the County and throughout the State. Public Works participated in various local and statewide conferences, providing several presentations, hosting public outreach booths and providing educational briefings. These venues have provided an opportunity to reach a diverse set of stakeholders, including elected officials, environmental organizations, relevant technology and project development companies, and interested community members.

Participation has included:

- Biocycle (April 2012)
- California Contract Cities Annual Municipal Conference (May 2012)
- APWA Congress (August 2012)

- County Engineers Association of California Conversion Technology Working Group (March and September 2012). This newly formed Working Group is chaired by Public Works' Assistant Deputy Director for Environmental Programs Division, Mr. Pat Proano. The Working Group is made up of jurisdictions in California who are pursuing conversion technology projects.
- CalRecycle Conversion Technology Workshop (November 2012). Public Works will cohost this forum with CalRecycle to discuss key issues regarding conversion technology regulations and future opportunities for projects in California.

5.1 Website

Since 2007, Public Works has maintained a website dedicated to the County's program and sends a monthly e-newsletter to over 1,500 recipients. Public Works' staff in conjunction with the County's outreach consultant recently completed a major update for this website. The new website is more visually appealing, easier to navigate, and includes several new features:

- Technology Vendor Database – Allows visitors to search and explore detailed information on 36 technology vendors who passed the County's evaluation criteria in the 2011 Request for Expressions of Interest.
- Financial Firm Listing – Provides a listing of financial institutions that provide funding to renewable energy projects and have expressed interest in conversion technologies.
- California Projects – Links to other California project websites to learn what is happening throughout the Golden State.
- Resources – Showcases the County's latest outreach materials, project reports, and other news of interest.

The site is tied on an electronic newsletter that has over 1,150 subscribers.

6 Update on Phase III Demonstration Projects

On April 20, 2010, your Board approved Memoranda of Understanding with CR&R Incorporated (CR&R), Rainbow Disposal Company (Rainbow), and International Environmental Solutions (IES). Due to economic and financial constraints, projects proposed by Rainbow and IES are indefinitely on hold; however CR&R's project has made significant process towards development over the past six months.

6.1 CR&R Incorporated

CR&R, a local solid waste management company, is developing the 150 ton per day AD project at its Perris Materials Recovery Facility (MRF) and Transfer Station (TS). Public Works actively assisted CR&R in pursuing funding for the facility, and the company was awarded a grant of more than \$4.5 Million from the CEC in January 2011. Since that time, the City of Perris approved the facility's Conditional Use Permit and Mitigated Negative Declaration, as required by the California Environmental Quality Act (CEQA), indicating the project will have no significant impacts on the environment. CR&R is working closely with CalRecycle and South Coast Air Quality Management District (SCAQMD) on their solid waste facility permit and air quality permit, respectively. The project has also been successful in obtaining two additional grants from the CEC and SCAQMD to pay for a portion of the Compressed Natural Gas (CNG) fueling station that will be located onsite for fueling the company's hauling fleet. The fueling station is expected to be in operation in 2013 and the anaerobic digestion (AD) facility, on track to begin operation in 2014, could become a model for the production of renewable biogas in California.

Following recent discussions between Public Works and CR&R, it was agreed by both parties that the project has successfully progressed to the point where CR&R no longer needs technical, grant, or permitting assistance from Public Works. As a result, Public Works and CR&R will no longer work through the MOU, instead continuing to work together to advance the project informally. In particular, Public Works will coordinate with CR&R regarding:

- Market development of the high-quality digestate produced by the AD facility and;
- Identifying market rate opportunities to increase waste tonnage directed to the facility.

This collaboration is expected to be mutually beneficial to Public Works and CR&R, fostering the development of conversion technologies on a broader scale in Los Angeles County.

7 Update on Phase IV Commercial Projects

A discussion of all eighteen sites considered within Los Angeles County was included in the April 2012 Report to the Board of Supervisors. This report provides updates on those sites that have progressed in project development since April 2012.

7.1 Calabasas Landfill, City of Calabasas/County of Los Angeles

The Calabasas Landfill is owned by the County of Los Angeles and operated by the County Sanitation Districts (CSD). In 2011, Public Works conducted a preliminary feasibility analysis evaluating various options for siting a conversion technology facility at the landfill that would 1) extend the life of the existing landfill, and 2) increase the financial viability of the landfill.

The feasibility analysis determined that a 700 tpd AD project at the Calabasas Landfill could provide significant benefits to both the County and the CSD.

On July, 3, 2012, the County's Chief Executive Officer submitted a letter to your Board requesting authorization to:

- Expend funds from the County Refuse Disposal Trust Fund to reimburse the Calabasas Landfill Capital Fund for the debt service payment on the Calabasas Landfill Project revenue bonds.
- Restructure existing long-term debt to provide near-term savings and better align debt service payments with future operational revenues at the Landfill.
- Prepare the necessary environmental documentation for a possible future recommendation to amend the County ordinance that sets rates for the Calabasas Landfill, and the County ordinance that established the wasteshed area, to allow for contracts with large volume waste haulers.
- Request approval from the State to substitute a Pledge of Revenue as an alternative Financial Assurance mechanism for Post-closure Maintenance of the Calabasas Landfill.

Further steps by Public Works to pursue a conversion technology project at the Calabasas Landfill are on hold at this time.

7.2 Scholl Canyon Landfill, City of Glendale/County of Los Angeles

The City is moving forward with plans to develop a conversion technology project at the Scholl Canyon Landfill. The landfill is located in the City of Glendale on property owned jointly by the City (90 percent) and the County (10 percent). It is operated by CSD. On May 31, 2012, Public Works participated on a technical panel for the City of Glendale to review top-ranked responses to their Request for Qualifications and Technical Information (RFQ-TI). The City is continuing to evaluate potential next steps following this review.

7.3 Pebbly Beach Landfill, City of Avalon

At the request of the City of Avalon, Public Works has prepared a conversion technology Assessment that considered multiple options for a conversion technology facility to be located at the Pebbly Beach Landfill on the Island of Catalina. The Assessment took into account the solid waste management system on the island and the economic constraints. Several conversion technology company sponsors were identified through the Public Works' technology database that could provide small scale conversion systems in the capacity range required by Avalon for processing post-recycled municipal solid waste (MSW), biosolids, green waste/food waste, and possibly other materials such as restaurant grease. These representative technology company sponsors have expressed interest in working with the City. In the meantime, the City of Avalon released a Request for Proposals (RFP) for residential and commercial waste

collection, operation of the MRF, hazardous waste collection facility, and landfill. The RFP requests proposers to integrate waste to energy system into the contract.

7.4 City Terrace MRF, Southland Disposal

In July 2012, City Terrace Recycling, LLC submitted their application to the County of Los Angeles Department of Regional Planning requesting revisions to their Conditional Use Permit (CUP) for an existing solid waste and recyclable material transfer station. The company initiated the first phase of CEQA by submitting an Initial Study for a proposed project that consists of two phases. Phase I consists of increasing the daily waste intake of mixed MSW, including recyclable materials from 700 tons per day (tpd) to 1,500 tpd while retrofitting and expanding the existing facility. Phase II consists of a new receiving and load-out building as well as a small anaerobic digestion facility to convert organic waste to biogas, which will be cleaned and used to replace CNG fuel.

7.5 South Gate MRF, Interior Removal Specialists (IRS) Demo

IRS Demo has expressed interest in developing a conversion technology project at its construction and demolition debris recycling facility in South Gate. In May 2012, Public Works prepared and submitted a memo to IRS Demo with a recommendation to define the quantity and characteristics of the waste to be processed at a potential conversion technology project. In September 2012, Public Works provided IRS Demo with a listing of conversion technology companies from the County's RFEI database that could potentially process IRS Demo's wastestream and integrate into their South Gate MRF.

8 Next Steps

Over the next six months, Public Works will actively engage on multiple fronts to implement the Board of Supervisors' directive to advance conversion technology legislation in the State and create a clear pathway for their development. Among these efforts, Public Works will:

- Work with CalRecycle and appropriate stakeholders to pursue legislation or policy changes that would establish a viable permitting process for these alternatives based on performance standards rather than prescriptive definitions; provide full diversion and greenhouse gas emission reduction credits for these alternatives under applicable State law; and provide that all energy produced by these conversion technology facilities be designated as renewable energy.
- Coordinate tours of Material Recovery Facilities with CalRecycle, County Engineer Association of California (CEAC), and other appropriate stakeholders.

- Provide technical and public outreach resources as needed to propose conversion technology projects located within the County.
- Monitor the permitting, design, and construction of the CR&R project.
- Work through CEAC/California State Association of California (CSAC) to expand the efforts of the conversion technology Working Group, generating interest among more jurisdictions and encouraging participation.

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