GAIL FARBER, CHAIR
MARGARET CLARK, VICE-CHAIR

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE/
INTEGRATED WASTE MANAGEMENT TASK FORCE
900 SOUTH FREMONT AVENUE, ALHAMBRA, CALIFORNIA 91803-1331
P.O. BOX 1460, ALHAMBRA, CALIFORNIA 91802-1460
www.lacountyiswmtf.org

February 8, 2012

Ms. Susan Hackwood, Executive Director
California Council on Science and Technology
1130 K Street, Suite 280
Sacramento, California 95814

Dear Ms. Hackwood:

COMMENTS REGARDING WASTE-TO-ENERGY IN CALIFORNIA: TECHNOLOGY, ISSUES AND CONTEXT, A REPORT TO THE CALIFORNIA COUNCIL ON SCIENCE AND TECHNOLOGY (RELEASED OCTOBER 2011)

The Los Angeles County Integrated Waste Management Task Force (Task Force) would like to commend Dr. Heather Youngs for her work on the report *Waste-to-Energy in California: Technology, Issues and Context, a report to the California Council on Science and Technology* (WTE Report). We appreciate Dr. Youngs' willingness to provide a presentation discussing the findings of her research at a recent meeting of this Task Force and the Alternative Technology Advisory Subcommittee.

This Task Force is a strong supporter of alternatives to landfills. For the last decade the Task Force, in concert with the County of Los Angeles and many other jurisdictions throughout California, has promoted and supported state policies that would encourage the development of solid waste conversion technologies. These technologies are environmentally sound and are capable of converting materials in the wastestream that cannot be recycled into useful products, energy, and fuels. Moving towards a waste-free future will require multiple strategies including a greater emphasis on public outreach and education, extended producer responsibility, expanded recycling programs, and conversion technologies for the management of residual waste.

The WTE Report accurately described several of the key benefits of these technologies such as decreased landfill burden, decreased greenhouse gas emissions through offset of fossil fuels, reliable, local, and low-carbon electricity and fuel production. The WTE Report also accurately points out that zero-landfill policies in the European Union have driven the growth of the waste-to-energy and conversion technology industry while achieving high recycling rates.

As we discussed with Dr. Youngs, we also have concerns with the WTE Report that we would like to bring to your attention:

- **Definition of "Waste-to-Energy"** - The WTE Report broadly uses the term "waste-to-energy" to describe both traditional "mass burn" waste combustion facilities as well as non-combustion technologies. This Task Force, the County of Los Angeles, and many other jurisdictions have historically used the term "conversion technologies" to define

non-combustion thermal, biological, chemical, and mechanical processes that convert residual solid waste into energy, biofuels, and other useful products and to make a distinction between combustion and non-combustion technologies. Throughout the solid waste industry, the term "waste to energy" has been used to refer exclusively to waste combustion facilities and has become synonymous with those facilities. We are concerned that the WTE Report's use of the term "waste-to-energy" in reference to both combustion and non-combustion technologies inadvertently reinforces the claims by opposition groups that conversion technologies are simply "incinerators in disguise," and reinforces unfortunate and somewhat undeserved negative connotations in the public regarding incineration or mass burn facilities. Therefore, we request that the more specific and applicable term "conversion technologies" be used when referring to non-combustion technologies. When referring to waste-to-energy and conversion technologies together, as the WTE Report does frequently, we recommend using the term "alternative technologies" since both categories of technologies are alternatives to landfills.

- **Previous Studies on Conversion Technologies** – The WTE Report has missed the opportunity to utilize a number of studies that were conducted during the past few years by the state and local governments. A few of these studies are listed below and are available for download at www.socalconversion.org:

    1. CalRecycle (formerly the California Integrated Waste Management Board) conducted a study entitled *Conversion Technologies Report to the Legislature* in 2005 pursuant to AB 2202. Mandated by the Legislature, this study encompassed three years and cost $1.5 Million.

    2. The City of Los Angeles developed a Resource Management Blueprint called RENEW LA in 2005 that presented a comprehensive plan for the recovery and beneficial use of material currently being buried in landfills. RENEW LA included a discussion of five different types of technologies that could help the City reach their goal of 90 percent diversion from landfills by 2025. These technologies included anaerobic digestion, gasification/pyrolysis, MSW composting, autoclaving, and fermentation.

    3. The County of Los Angeles developed reports in 2005 and 2007, identifying over 100 technology vendors and multiple site locations for potential projects. Technologies listed in the Reports passed a rigorous screening process developed by the County and the Alternative Technology Advisory Subcommittee.

- **Lifecycle Analysis** - We agree with the WTE Report's recommendation to develop a regionally specific optimization model and lifecycle analysis that includes all waste management options. A proper lifecycle analysis is critical for future policy decisions. In 2009, CalRecycle developed a *Lifecycle Assessment and Economic Analysis of Organic Waste Management and Greenhouse Gas Reduction Options*. Unfortunately it excluded the full range of conversion technologies that include thermal, chemical, biological, and mechanical processes. Given the number of projects currently underway in the state and

given that many of these projects would fall under CalRecycle's purview, we believe the state should develop a model that would enable jurisdictions to create project-specific or regional lifecycle analyses.

- **Impacts on Recycling** - In Section 1.2 the WTE Report states that a possible negative impact of alternative technology systems could be a disincentive to waste reduction and recycling programs. This is contradictory to data from European countries indicating that countries with the highest recycling rates also have the highest alternative technology utilization rates. Studies of communities with waste-to-energy facilities in the U.S. have reinforced this data showing that waste-to-energy/conversion technologies are complementary to recycling. Furthermore, in their *2005 Conversion Technologies Report to the Legislature*, CalRecycle found that the "presence of recycling programs may improve economics [of conversion facilities] by reducing the need for sorting and size reduction of the feedstock prior to conversion." This should be reflected in the WTE Report. CalRecycle's report also found that "advanced thermal conversion technologies have several potential benefits over waste incineration including lower environmental impacts, higher electrical conversion efficiencies, and greater compatibility with recycling." This reinforces the need to differentiate between combustion and non-combustion technologies, while noting once again that conversion technologies and recycling are compatible.

- **Air Emissions** - Section 1.2 of the WTE Report states that another possible negative impact of alternative technology systems are increased air and water impacts with a disproportionate effect on already stressed urban areas. This is contradictory to numerous published reports and studies including those conducted by the County of Los Angeles, the University of California at Riverside, and CalRecycle. For example, CalRecycle developed comparisons of emissions from landfills, waste-to-energy, and conversion technologies in their 2005 report and noted that conversion technologies have the lowest net criteria air pollutant levels and GHG emissions and can actually help make our air cleaner by offsetting higher emissions from other sources.

- **Thermochemical systems** – We would like to point out that the statement on page 10 regarding the potential for leaching from paving materials made from thermochemical system byproducts is incorrect. In many processes the ash is vitrified by heating above the melting point or fusion temperature of the ash. This slag is a hard glassy substance that has little if any leachability. The bottom ash and slag may also be used in different construction and other applications.

  In addition, Table 7 of the WTE Report lists pyrolysis and gasification technologies as generating residual waste sent to landfill disposal that is as much as 30% of the waste processed. The County of Los Angeles has evaluated hundreds of different conversion technology vendors, and virtually all of the thermal conversion technologies have a residual quantity of 5% or less.

Pursuant to Chapter 3.67 of the Los Angeles County Code and the California Integrated Waste Management Act of 1989 (Assembly Bill 939, as amended), the Task Force is responsible for coordinating the development of all major solid waste planning documents prepared by the County and the 88 cities in the County of Los Angeles with a combined population equivalent to approximately one-third of the California population. Consistent with these responsibilities and to ensure a coordinated, cost-effective, and environmentally sound solid waste management system in the County of Los Angeles, the Task Force also addresses issues impacting the solid waste management system on a countywide basis. The Task Force membership includes representatives of the League of California Cities (Los Angeles County Division), the County of Los Angeles Board of Supervisors, the City of Los Angeles, the waste management industry, environmental groups, the public, and a number of governmental agencies.

Again, we appreciate Dr. Youngs' analysis on waste-to-energy and conversion technologies in California. We hope that this is the basis for future discussions on the state level regarding an appropriate permitting pathway for these technologies. Thank you for your consideration of our comments. If you have any questions, please contact Mr. Mike Mohajer of the Task Force at MikeMohajer@yahoo.com or (909) 592-1147.

Sincerely,

Margaret Clark

Margaret Clark, Vice-Chair
Los Angeles County Solid Waste Management Committee/
Integrated Waste management Task Force and
Council Member, City of Rosemead

TM:ts
P:\eppub\ENGPLAN\TASK FORCE\Letters\WTE Report Comments (Youngs) 02-08-12.doc

cc: Each Member of the Los Angeles County Board of Supervisors
Ms. Carroll Mortensen, CalRecycle
Dr. Heather Youngs, UC Berkley
Bill Welch, UC Riverside
Alex Helou, City of Los Angeles Bureau of Sanitation
Each Member of the Los Angeles County Integrated Waste Management Task Force
Each Member of the Alternative Technology Advisory Subcommittee