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## WASTE MANAGEMENT

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California Air Resources Board

### California's Cap & Trade Program and Waste-To-Energy (WTE)

California's three existing waste-to-energy facilities are included in the Greenhouse Gas Cap and Trade Program. Anthropogenic GHG emissions (largely CO<sub>2</sub>) comprise about 40% of emissions. Facilities must buy allowances each year for their annual emissions to comply with the program and expect added cost of about \$8 ton for disposal. The added cost may result in facility closings.

California's waste management operations rely heavily on the Waste-to-Energy facilities to meet recycling goals and provide safe disposal. Facility closure will increase transportation and its impacts on energy consumption and the environment, increase disposal costs, and make meeting recycling goals more difficult.

The California Air Resource Board (CARB), in deciding to include waste-to-energy in the Cap and Trade program, did not consider the significant benefits of Waste-to-Energy with regard to lowering greenhouse gas (GHG) emissions into the atmosphere, including lifecycle studies completed by the State of California on waste management's impact on Climate Change.

CARB's own analysis completed for the Renewable Energy Standard concluded that waste-to-energy ranked number one among renewable sources for greenhouse gas benefits, above solar and wind. CARB's sister agency, the CIWMB (now CalRecycle) completed a comprehensive life-cycle assessment of GHG reductions associated with waste management practices that concluded the greatest degree of GHG reductions from the waste and recycling sector is achieved by maximizing energy recovery from waste.

The European Union Emission Trading Scheme (EU-ETS), the European Environment Agency, federal GHG bills sponsored by Senator Boxer and by Congressmen Waxman and Markey, and the Clean Development Mechanism under the Kyoto Protocol all recognize and encourage Waste-to-Energy for its Climate Change benefits.

CARB points to the RGGI (the Regional Greenhouse Gas Initiative) as an example of a Cap & Trade program not supporting Waste-to-Energy, but under RGGI Waste-to-Energy is excluded because the facilities generate electricity from municipal solid waste and RGGI has no mechanism to account for the lifecycle benefits of Waste-to-Energy. A RGGI approach is the approach Waste-to-Energy supporters recommended to the agency.

No other GHG program in the world regulates waste-to-energy. Most policies and programs consider Waste-To-Energy a renewable energy source.

CARB claims in its analysis that led to the decision regarding Waste-To-Energy that landfill covers are nearly impermeable. When challenged on the assumptions, CARB responded by saying it plans another study on all waste management practices.

Waste-To-Energy's greenhouse gas benefits come from avoiding carbon dioxide emissions from fossil fuels (the energy generation it displaces) and by avoiding methane emissions from landfills (the waste disposal it displaces). Waste-To-Energy combusts all household garbage of which about 40 % is fossil based, such as plastic. CARB focuses only on the 40% anthropogenic portion of waste. Existing waste-to-energy facilities have no control over the content of the post-recycled waste they receive, so cannot reduce GHG through flow control. California's three operating Waste-To-Energy power plants already are tied to aggressive recycling programs that recycle plastic.

California utilities will be given allowances for free. Unlike utilities, Waste-To-Energy facilities must pay for their allowances.

Cities are severely strapped for cash. When tip fees rise, garbage haulers will choose cheaper landfill disposal. The facilities only option is to buy allowances on the market to cover the annual compliance obligation.<sup>1</sup> Tip fees will rise about \$8 per ton of trash disposed, leading to at least one facility closing, and severely impacting the other two facilities.

Recycling and other waste management programs will be hurt because they depend on Waste-To-Energy operations.

CARB staff in July 2011 said they supported a lifecycle analysis that concluded waste-to-energy is a GHG benefit. This summer CARB excluded Waste-To-Energy based on a lifecycle approach that followed accepted regulatory approaches. A discussion draft of the regulation<sup>2</sup> fully exempted the existing permitted waste-to-energy facilities in the state from compliance obligations. However, CARB staff later decided to rely on unverified models to support a decision to include Waste-to-Energy in the Cap and Trade Program.

Waste Management urges CARB to reconsider imposing a compliance obligation on California's 3 existing WTE facilities.

Sincerely,



Charles A. White, P.E.  
Director of Regulatory Affairs/West

<sup>1</sup> The cap and trade regulation requires that facilities surrender allowances for the level of GHG emissions emitted in the previous year.

<sup>2</sup> CARB's Governing Board approved the cap and trade program in December 2010, but passed numerous resolutions requiring additional amendments to the regulation. These amendments are release to the public for 15-day reviews (termed 15-day packages).