GREENACTION
For Health & Environmental Justice

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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 03-RPS-1078
and
Docket No. 02-REN-1038
RPS Proceeding
1516 Ninth Street
Sacramento, CA 95814-5512

Also submitted by email to: docket@energy.state.ca.us

Re: Comments related to MSW in the RPS

Dear California Energy Commission,

Thank you for the opportunity to provide comments on the proposed changes to the RPS Eligibility Guidebook and the Overall Program Guidebook for the Renewable Energy Program. The following comments address a proposed change in the RPS Eligibility Guidebook, and respond to a question raised by CEC staff during the August 30, 2010 staff workshop.

Requesting removal of proposed changes in the RPS Eligibility Guidebook related to Solid Waste Conversion Facilities, page 28

The Guidebook currently states that a MSW "conversion facility" is eligible for the RPS if the facility "uses a two-step process to create energy whereby in the first step gasification conversion) a noncombustion thermal process that consumes no excess oxygen is used to convert MSW into a clean burning fuel, and then in the second step this clean burning fuel is used to generate electricity," among other requirements. It is the two-step design of these processes that causes the European Union to consider such facilities incineration. This two-step design is also why these facilities are also called "staged incineration".

However, the new amended language on page 28 of the RPS Eligibility Guidebook might create a loophole for emissions and other controls from the energy generation phase. The proposed new language states:

> The MSW conversion process and the electric generation process may take place on the same site or at separate locations. If the two processes occur at different sites, the

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delivery of the MSW conversion gas must comply with the same delivery rules as presented in Subsection 2: Biogas.

This amendment to the Guidebook could allow the energy-production phase of the MSW gasification process to avoid being subject to the strict and necessary requirements for MSW conversion facilities. Specifically, such facilities are required to produce "no discharges of air contaminants or emissions, including greenhouse gases", "no discharges to surface or groundwaters of the state", and "no hazardous wastes", among other requirements.

If the entire second step process is not required to meet these eligibility requirements, the requirements lose much of their meaning as the primary point at which emissions will occur is at the point of combustion of the gases. We do not discount the potential for releases in the first step from accidents, however, as history has shown at such facilities overseas.[1]

We discourage the CEC from allowing any sort of separation of the two stages of what CEC calls "Solid Waste Conversion Facilities" in order to ensure that the controls are in place. Further, we urge CEC to not assume that the gases created during the first step will be "clean burning". Gasification incinerators have the similar emissions profile as mass burn incinerators, and may release dioxins, heavy metals and other hazardous pollutants.[2,3]

Regarding the question of biomass and MSW posed at the staff workshop

CEC has made the right decision in the past to keep MSW separate from biomass. From climate, energy, public health, economic and jobs creation perspectives, it would be a mistake for MSW to now be considered biomass.

The remaining materials would likely have toxic components, which are the last things that one would want to be considered renewable. Once all recyclables and compostables are removed, what is left are a combination of unrecyclable plastics, products containing unknown and heterogeneous components, and other materials that vary so greatly it is impossible to reliably predict actual content of the waste hour by hour at a combustion facility, much less predict emissions. Such materials should not be considered "renewable" by any stretch of the imagination. Furthermore, biomass combustion facilities would not have adequate or appropriate air pollution mitigation technologies to handle these waste streams. Finding solutions for waste that does remain after removing all that is recyclable and compostable has become a large issue in the California legislature as cities have joined together to call for Extended Producer Responsibility, especially for hard or polluting to recycle products.[4]

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[1] For examples, please see *An Industry Blowing Smoke*, GAIA, 2008, pp. 12 and 14. www.no-burn.org/blowingsmoke

[2] Tellus Institute, *Assessment of Materials Management Options for the Massachusetts Solid Waste Master Plan Review*, commissioned by the Massachusetts Department of Environmental Protection, 2008, p. 27.

[3] For other information on emissions, please see *An Industry Blowing Smoke*, GAIA, 2008, pp. 10-12. www.no-burn.org/blowingsmoke

[4] See California Product Stewardship Council, www.calpsc.org

We are very concerned that any technologies burning MSW would undermine waste prevention, recycling and composting programs. From an energy perspective waste prevention, recycling and composting are vital for GHG reduction and energy conservation.

From a climate perspective, a zero waste approach is one of the fastest, cheapest and most effective strategies we can use to protect the climate and the environment. Significantly decreasing waste disposal in both landfills and incinerators will reduce greenhouse gases equivalent to closing one-fifth of US coal-fired power plants.[5] This is comparable to benefits that would be gained through vehicle fuel efficiency. Incinerators emit more carbon dioxide (CO_2) per unit of electricity (2988 lbs/MWh) than coal-fired power plants. (2249 lbs/MWh).[6] Burning MSW is also an inefficient way to produce energy, with 19-27 percent efficiency, and wastes the embodied energy in the materials being burned.[7]

Recycling is so important that the Air Resources Board and CalRecycle are working on mandatory commercial recycling requirements for every business in the state to help meet California's GHG reduction goals.

Furthermore, zero waste approaches generate far more jobs than incineration using any technology, and finally, from a public health perspective, a zero waste approach will greatly reduce harmful air emissions from the various incineration technologies.

We hope you are receptive to these recommendations and are available to discuss our comments.

Sincerely,

Bradley Angel

Bradley Angel
Executive Director

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[5] ILSR, Stop Trashing the Climate, 2008, p. 7. www.stoptrashingtheclimate.org

[6] US EPA, http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html

[7] Fitchner Consulting Engineers Limited, *The Viability of Advanced Thermal Treatment in the UK*, 2004, p. 4.