



DOCKET 03-RPS-1078

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September 10, 2010

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

Via Email: docket@energy.state.ca.us

Subject: Renewables Portfolio Standard Eligibility Guidebook (Docket No. 03-RPS-1078) and the Overall Program Guidebook for the Renewable Energy Program (Docket No. 02-REN-1038)

Dear Energy Commission:

Thank you for the opportunity to submit comments on the RPS Guidebook and the Overall Guidebook. The RPS Guidebook describes the eligibility requirements and process for certifying renewable resources as eligible for California's RPS and describes how the Energy Commission verifies compliance with the RPS. The Overall Guidebook describes specific aspects of the administration of the Renewable Energy Program. Proposed changes to the Overall Guidebook revise and update various definitions applicable to the RPS.

The focus of Waste Management's (WM) comments today is on the additional issues under consideration for inclusion in the RPS Guidebook. As requested by CEC staff, we are responding to specific questions regarding the following topics:

- Clarifying whether pre-processed municipal solid waste is considered RPS eligible biomass feedstock, and
- Clarifying the RPS eligibility requirements for biogas.
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WM's response to the above questions is provided below in accordance with our priority concerns.

Clarifying whether pre-processed municipal solid waste is considered RPS-eligible biomass feedstock.

Electricity generation from facilities utilizing municipal solid waste as a fuel is currently eligible for the California RPS in two technology categories, solid waste combustion and solid waste conversion. A facility using solid waste combustion technology is RPS eligible only if operational before September 1996 and located in Stanislaus County. The current policy holding that only Stanislaus is the only facility eligible for the RPS is not consistent with federal policy on Waste-to-Energy. Waste-to-energy is a renewable source of power as defined by the federal government and many states (see list on ERC website at www.wte.org).

A facility using solid waste conversion technology must use a gasification conversion process that meets strict eligibility criteria during the conversion process, and must meet the following requirements:

- The facility accepts and processes “solid waste” as defined in Public Resources Code Section 40191 and is not limited to receiving and processing “source separated” waste as defined in Title 14, California Code of Regulations, Section 17402.5(b)(4).
- The facility processes solid waste from which, as much as possible, all recyclable materials and marketable green waste compostable materials have been removed before the solid waste conversion process.
- All recyclable materials and marketable green waste compostable materials that have been removed from solid waste delivered to the facility are recycled or composted.
- Any local agency sending solid waste to the facility diverted at least 30 percent of all solid waste it collects through solid waste reduction, recycling, and composting.

According to Public Resources Code 40180, “recycling” means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.

If MSW is handled and processed into a different or new product for a purpose other than for a landfill, as determined by the Department of Resources Recycling and Recovery (CalRecycle), then it is no longer regulated by CalRecycle as “solid waste.” A facility utilizing biomass to generate electricity is eligible for the RPS if the facility uses a biomass fuel as defined by the Energy Commission. The Overall Program Guidebook defines biomass broadly and includes “any organic material not derived from fossil fuels.” Because MSW contains a mixture of organic and inorganic and fossil fuel based materials, the Energy Commission does not currently consider MSW as an eligible biomass feedstock.

The following questions have been posed by CEC with WM’s response:

- *If MSW is processed and handled such that CalRecycle makes a determination that it is not solid waste, should the Energy Commission reconsider the MSW as an eligible biomass fuel for the RPS?*

Yes. To the extent that solid waste is processed to enter the market places as a feedstock or a fuel – even though derived from solid waste, it should be eligible for consideration as biomass fuel. Such an interpretation is consistent with the provisions of PRC 40180, cited above, regarding the recycling of solid waste and returning it the economic mainstream as a “reconstituted products which meet the quality standards necessary to be used in the marketplace”. That reconstituted product should definitely include a fuel feedstock that is produced from solid waste. Such fuel should be primarily made up of the biogenic organic fraction of the waste stream. Such an interpretation is essential if California is to take maximum beneficial advantage of the organic constituents that comprise much of the solid waste stream. The processing of waste to make it suitable a fuel feedstock is consistent with the Governor’s BioEnergy Action Plan.

- ***If the answer to “a” above is “yes,” should the material be limited to the organic fraction that remains after recyclables and compostables have been removed?***

Yes and No, depending on the type of materials to be removed.

Non-*biogenic* recyclable materials (e.g., plastics, glass, metals) should be removed to the maximum feasible extent to make a biomass fuel – or as part of the process using the biomass fuel. This may occur before, during or after the energy generating process – depending on the type of process. It should not make any difference whether these materials are removed before, during or after the process – provided maximum feasible recovery is achieved. However, it may not be possible to remove all such material from the feedstock – nor should it be required to do so. De minimis amounts of plastic, glass, metals should be allowed to remain provided they don’t interfere with the energy generating process.

Removal of other biogenic organic materials (e.g., paper, plant matter, cardboard) should not be required. Biogenic organic materials that may also be used as compostables or otherwise recycled should not necessarily be removed. These organics may contribute to the generation of bio-energy if they are processed into a biomass fuel feedstock. Requiring the removal of biogenic organics for purposes of composting or recycling does not make sense if the objective to maximize recovery of energy from organic materials. Of course, a solid waste processor may choose to remove biogenic organic materials for purposes of recycling or composting prior to producing the fuel feedstock. However, that decision should be left up to the waste processor based on the markets for the processed organic materials. For example, if the markets are robust for the recovery of paper from the waste stream, the operator may choose to increase the processing to remove paper. However, in a weak paper market, the processor may choose to keep the paper as part of the biogenic waste stream to produce the biomass fuel.

- ***Is there a reasonable amount of fossil fuel fraction that can remain after recyclables and compostables have been removed from MSW such that 100 percent of the material can be considered renewable for purposes of the RPS?***

Yes. While all reasonable attempts to remove fossil fuel derived fractions of the MSW (e.g., plastics) are appropriate, complete removal is not always feasible.

WM suggests a de minimis 5% fossil fraction should be used as a cut-off for consideration of the entire feedstock as renewable fuel. The 5% or 10% factors are frequently used to determine levels of “significance”. Less than 5% fossil derived materials should be considered insignificant.

- ***Is the fossil fuel fraction remaining after processing measurable? If so, how?***

Yes, we believe the residual fossil fraction remaining after process is measurable by conducting occasional materials classification studies on the fuel feedstock output from the fuel processing facility to determine the fraction of fossil material remaining. Some variability surrounding the 5% level should be allowed, provided the processor demonstrates long-term consistency with the 5% fossil material level recognizing that there may be some error rate in the measurement. In other words, if 5% fossil were measured, the actual level could vary somewhat – but still considered to be very low and demonstrating significant effort to meet the 95% biomass requirement. Due to a variety of variables, a solid waste processor producing biomass fuel may have 5% fossil material one quarter, 6% the next quarter, and 4% the following quarter. Overall, the facility should be viewed as producing biomass fuel that contains no more than 5% de minimis amounts of fossil material.

- ***What is a reasonable amount of remaining material from fossil fuel that could render 100 percent of the material as an eligible biomass feedstock?***

While every feasible attempt to remove fossil fuel derived fractions of the MSW (e.g., plastics) complete removal is not always feasible. A 5% fossil fraction should be used as a cut-off for consideration of the entire feedstock as renewable fuel. If greater than 5% fossil fuel material remains, then the fraction of the remaining biomass fuel that is not fossil-derived should still be considered biomass feedstock. For example, consider a MSW that is processed to remove recyclables and fossil derived materials and the remaining fuel contains 90% biomass and 10% fossil materials. The first 5% of the fossil materials should be allowed to be part of the biomass, consistent with the discussion above. Then the resultant fuel should be considered 95% biomass and 5% fossil for purposes of RPs compliance.

Clarifying the RPS eligibility requirements for biogas -- Biogas Delivery via Injection into the Natural Gas Pipeline System.

- **Should the Energy Commission consider further restricting the location of eligible biogas production facilities to participate in California’s RPS? If so, please suggest reasonable and verifiable parameters.**

WM’s position on this is no, there should be no further restrictions on the location of eligible biogas production facilities to participate in California’s RPS. California should be able to take advantage of biogas generated in other states or countries and used in California. This is continuation of the past practice of producing biogas in other states

and selling it into CA via interstate pipelines. Landfill gas is created naturally through the decomposition of waste. Made up of about 55 percent methane and 45 percent CO₂, the gas is collected using extraction wells spaced throughout the landfill. Once collected, the gas can be used in any facility that would otherwise use fossil fuel, including electricity production, industrial heating and steam production, liquid waste evaporation facilities – as well as be treated to meet applicable gas pipeline standards.

Like wind and solar power, landfill-gas is a clean energy resource that has been endorsed by the EPA as an environmentally responsible alternative that reduces our reliance on fossil fuels. Over the years, Waste Management has worked closely with businesses, industries and public utilities to develop many beneficial-use projects. We currently supply landfill-gas to over 115 projects in North America, which provides the equivalent of over 550 megawatts of electricity enough to power more than 400,000 homes; a combined savings of over 2.2 million tons of coal per year.

Waste Management helped pioneer the landfill-gas-to-energy industry, and we continue to develop new projects to help us reach our sustainability goal of creating enough renewable energy to power more than 2 million homes by 2020.

It is our belief that the intent of the Commission is not to prohibit the use of biogas from out-of-state facilities that is delivered for use in the production of renewable electric power. Based on our knowledge of the industry, we are certainly aware that access to biogas injected into pipelines to produce renewable electric power is being aggressively pursued by power utilities.

RPS requirement on California utilities may be increased from the 20% of generation requirement in 2010 (a goal that is not currently being met by any of the investor-owned utilities to which it applies) to 33% of generation that will now also include the publicly owned utilities. It seems counterproductive to restrict access to any renewable resource, but particularly a valuable and scarce resource such as biogas.

- **If other restrictions should be considered, what should those restrictions be?**

WM recommends no restrictions, consistent with the above discussion.

- **Should the use of storage facilities be disallowed in the delivery of biogas to an RPS-eligible biogas electricity generating facility? If yes, why and under what conditions?**

WM recommends no restrictions, consistent with the above discussion. For the reasons set forth above, there should be no disallowance or restrictions on the use of storage facilities in the delivery of biogas to an RPS-eligible biogas electricity generating facility. Any barrier that would inhibit the beneficial use of biogas in California would be detrimental to the objectives of California utilities to meet their RPS requirements and would place additional barriers to the already significant barriers that have restricted development of more biogas projects in the United States.

- **Should the use of natural gas storage facilities to store biogas in a natural gas pipeline system be treated differently than the transportation of biogas through a natural gas pipeline system? If yes, please explain.**

WM recommends no restrictions, consistent with the above discussion. For all of the reasons set forth above there should be no different treatment of the use of natural gas storage facilities to store biogas than the transportation of biogas through a natural gas pipeline system. Any barrier that would inhibit the beneficial use of biogas in California would be detrimental to the objectives of California utilities to meet their RPS requirements and would place additional barriers to the already significant barriers that have restricted development of more biogas projects in the United States.

Waste Management requests that we be further notified of further deliberations associated with the above issues. Please contact me if you have any questions regarding the information contained in this letter.

Sincerely,



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

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