WASTE MANAGEMENT

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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 11-IEP-1A
1516 Ninth Street
Sacramento, CA 95814-5512

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

Subject: Waste Management Comments on California Clean Energy Future; Docket No. 11-IEP-1A

Dear Energy Commission:

Thank you for the opportunity to comment on the update of the *California Clean Energy Future* to reflect Governor Brown's 2020 energy policy goals as well as the recently enacted 33 percent renewable portfolio standard. Waste Management understands that California's state energy and environmental agencies (California Energy Commission, California Environmental Protection Agency, California Air Resources Board, and the California Public Utilities Commission) and the California Independent System Operator Corporation (California ISO) are working together to coordinate and align their proceedings and initiatives to achieve the state's energy and environmental policies. You are looking for feedback on how to measure progress in meeting the policies identified in the *California Clean Energy Future Overview* document and on how to execute the policies and track progress in a transparent and effective way.

Waste Management (WM) provides comprehensive waste, recycling and sustainability services throughout California, including the production of over 100 MW of renewable energy from the state's waste biomass resources including landfill gas and biomass waste (urban, forest and agriculture biomass wastes). WM is evaluating the possibility of significantly expanding the development of clean, renewable, low carbon biomass energy projects in California. But, in order to do this, WM depends on the development and articulation of clear policies and plans by the State of California to support biomass energy resources.

WM has partnered with Linde North America to construction the first commercial scale landfill gas to renewable LNG facility at our Altamont landfill in Alameda County. This facility produces up to 13,000 gallons/day of renewable LNG. This is one of the cleanest and lowest carbon fuels currently being produced in California with a carbon intensity of

only about 5% of petroleum fuels. We are currently developing plans, with CEC assistance from AB 118 funds, to construct a second similar, but larger and more efficient, renewable LNG plant in Southern California.

As documented on page 25 of the 2011 Bioenergy Action Plan prepared by the California Energy Commission (CEC) for the Bioenergy Working Group, California has the technical potential to develop 44.3 TWhr (1.37 billion gge) of renewable energy by the year 2020. *This is approximately 8 times greater than the current level of California's biomass energy development.* Further, there is an existing Governor's Executive Order No. S-06-06 that commits California to a target of generating 20 percent of the state's renewable energy from biopower (biomass to electricity) by 2010 and maintaining this ratio through 2020. Executive Order S-06-06 also commits the state to a target of producing 20 percent of its biofuel use (biomass-based transportation fuels) within the state by 2010, 40 percent by 2020, and 75 percent by 2050. *These are metrics that should be closely monitored as part of California's Clean Energy Future.*

Unfortunately, the existing *Clean Energy Future* Implementation plan published in September 2010 makes only passing mention of the potential for biomass energy development. The only mention of biomass or bioenergy occurs on page 61 of this document pertaining to the development of CHP potential a waste water treatment plants in California. While further development and enhancement of waste water treatment facilities is an important element in developing biomass energy, this brief discussion represents only the "tip of the iceberg". WM recommends that the full biomass energy development potential as outlined by the CEC's BioEnergy Action Plan be included in a revised and updated *Clean Energy Future* Implementation plan.

Similarly, the existing *Clean Energy Future* Overview and Metric Review makes only passing reference to the development of BioEnergy Resources (See Renewable Energy Metrics). WM recommends that these metrics be expanded to include the tracking of BioEnergy development in California. There are significant challenges facing the development of bioenergy in California. The California Clean Energy Future should highlight and track the resolution of these challenges, including:

- The maintenance of existing bioenergy resources and the development of new additional bioenergy resource requires a robust and dependable market for renewable energy credits and/or Greenhouse gas credits that recognize the benefits of bioenergy resources. For example, a specific protocols for GHG offsets from the development and use of biomass resources for energy & fuels would be a significant boost to the industry.
- Development of a clear road map on how the 20% of the state's renewable energy needs will be met with biopower *and* a clear road map on how instate resources can be developed to provide for California's transportation biofuel use (20% by 2010, 40% by 2020, and 75% by 2050). The Clean Energy Future should

describe the policies that will be required to meet the biopower and transportation biofuel use goals simultaneously in a coordinated fashion.

- Biogas, including landfill gas, to Utility pipelines. Currently, there is a reluctance to allow treated biogas into utility pipelines for distribution to lower the carbon intensity of natural gas even though technology clearly exists to reliably condition and treat biogas. Treated landfill gas is currently banned from utility pipelines even though it meets all gas quality standards. This must be changed and the Clean Energy Future should develop metrics showing how this will be accomplished.

- Existing biomass energy plants (biopower) are under extreme economic pressure through existing contracts from the major utilities. Existing biomass energy producers are being offered significantly less revenues than are new renewable energy sources. Existing biomass energy plants need to be provided a revenue boost in order to keep existing plants operational in compliance with all regulatory standards. Consideration must be given to providing additional revenues through resources as the public goods charge to keep these facilities "afloat" under existing contracts can be renegotiated. California state policy should recognize the priority importance of keeping existing biomass energy plants operational with a reasonable revenue margin to maintain operational and compliance excellence.

- Waste derived bioenergy power faces major regulatory obstacles to development. Although biogas from anaerobic digestion, including landfill gas, is considered a renewable energy source in California, it is less clear whether the conversion of solid waste biomass to biopower using other than anaerobic digestion is considered renewable. Even though waste derived biomass from municipal, agricultural and forest sources clearly have the lowest carbon intensity of any biomass power or fuel resources, existing state law and policy puts obstacles in the path of developing these resources:

    - Municipal solid waste, including just the biogenic fraction, is not considered a renewable resource in California when directly converted into energy. This policy needs to be re-evaluated.

    - Uncertainty exists regarding whether conversion technologies (e.g. gasification) to develop fuels and biopower from municipal biogenic waste sources are considered renewable and eligible for landfill diversion credit.

    - There needs to be *continued* clear recognition that forest and ag wastes are waste based fuels with low carbon intensity -- and *not* considered crop based fuels. The current proposed Cap and Trade regulations

appear to be a good start at recognizing that forest and ag wastes are low carbon fuels.

In summary, Waste Management recommends and requests that the policies identified in the *California Clean Energy Future Overview* document include the following metrics to track progress in maintaining and expanding California's bioenergy resources:

- Clear metrics on how California is progressing on meeting it goal of providing 20% of its renewable power from biomass resources.
- Clear metrics on how California is progressing on meeting its goals of providing having its transportation biofuel needs met by instate resources (20% by 2010, 40% by 2020, and 75% by 2050).
- Clear metrics on how California is progressing on removing obstacles to bioenergy maintenance and development such as those articulated above.

Waste Management appreciates the opportunity to provide these perspectives for your consideration. Please contact me if you require further information or have questions about these recommendations and requests.

Sincerely,

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Director of Regulatory Affairs/West

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