WASTE MANAGEMENT

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California Energy Commission
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1516 North Street
Sacramento, CA 95814-5512

Submitted via email: ***docket@energy.ca.gov***

RE: Comments on Behalf of Waste Management on the First Triennial Investment Plan for the Electric Program Investment Charge Program -- Docket No. 12 EPIC

Introduction

We appreciate the opportunity to submit these comments on behalf of Waste Management and Wheelabrator Technologies Inc. on the first triennial investment plan for the Electric Program Investment Charge Program (hereafter referred to as "EPIC" or "the Program"). The Program can have a significant impact on development and commercialization of clean energy generation from waste and other bioenergy sources, including the advancement of technologies that will result in a cleaner environment and fewer emissions of greenhouse gases into our atmosphere.

Waste Management is the leading provider of comprehensive waste management and environmental services in North America. The company serves approximately 20 million municipal, commercial, industrial and residential customers through a network of 390 collection operations, 294 transfer stations, 266 active municipal solid waste (MSW) landfill disposal sites, 121 recycling facilities, 34 organic processing facilities and 136 beneficial-use landfill gas projects. Many of these facilities operate in California. In addition, Waste Management has recently focused on investing in emerging technologies for converting waste materials into renewable energy through its Organic Growth Group.

Wheelabrator Technologies is a wholly owned subsidiary of Waste Management and the owner/operator of safe, clean and renewable power across the United States, including 17 waste-to-energy power plants and its Shasta Energy Plant in Anderson, California, that generates electricity from wood waste. Wheelabrator's Norwalk Energy power plant, a Combined Heat and Power facility, produces electricity sold to the local utility and provides steam and chilled water to meet the needs of a co-located state hospital.

Our comments are directed at the Program's investments for new generation in the bioenergy arena including funding of projects that fall within the Applied Research category for which an annual $55 million will be administered by the California Energy Commission (CEC) and the Technology Demonstration and Deployment category for which an annual $45 million will be administrated by the CEC and $30 million will be administered by the state's utilities. In particular, we address funding needs for Applied Research and Technology Demonstration of bioenergy projects. The California Public Utilities Commission found the development of bioenergy of such importance that it established in its Decision 12-05-037 for Rulemaking 11-10-003 on May 24, 2012, that at least 20 percent of the total $75 million for Technology Demonstration and Deployment to be administered annually by the CEC and utilities should be obligated to bioenergy generation.

EPIC Should Fund Research into Waste and Waste Water Treatment Technologies that Produce Electricity from Biosolids

Research should be encouraged and funding should be available to advance the use of a variety of waste as fuel for electric power. EPIC should promote similar goals of AB 341 (Chesbro, 2011) in funding technologies that can take materials diverted from disposal facilities and convert them into bioenergy. In particular, we point to promising research into the use of biosolids from wastewater treatment digesters to produce fuel. Energy from waste of any kind has the potential dual benefit of power generation to displace fossil fuels and reuse of waste in a manner that can be environmentally superior to simple disposal. There are a number of commercially successful technologies that generate electricity from waste. We believe there are an equal number of emerging technologies that could generate electricity from waste if research funding were available to advance engineering design of these promising methods. By focusing specifically on wastewater treatment research, EPIC funding would provide the dollars necessary for the next step towards commercialization of technologies that generate electricity and help communities safely treat wastewaters thereby protecting the state's precious water supplies.

EPIC Should Fund Programs that Advance Biogas and Biomethane

Biogas (onsite landfill-gas-to-energy) and biomethane (high-BTU pipeline-quality methane) projects are key to the development of bioenergy. Landfill gas is the largest existing source of biogas currently collected in California. CalRecycle estimates only about 53% of collected landfill gas is used beneficially to produce electricity or fuels. The remaining 47% is flared and its energy wasted. EPIC funds should be invested in projects that demonstrate the commercial viability of biomethane and biogas-to-energy projects. The technology to commercialize biomethane and biogas-to-energy is available, but currently too expensive to be competitive in the market.

One of the key reasons for this is that fossil natural gas is at a historic low price (between $2-$3 per MMBTU). More efficient methods to use landfill gas to generate power will lead to cleaner energy and lower greenhouse gas emissions from both energy generation and waste disposal sectors.

In fashioning an Investment Plan as it relates to biogas, we believe funding and other incentives should not differentiate between the treatment of on-site generation as compared to offsite use of biogas to produce electrical power. The two should be treated similarly. There should be no restrictions or location requirements on biogas to be eligible under the Program. There is no justification for differentiating between biogas used on-site and biogas used offsite. The state is benefited by landfill biogas and other biogas projects that result in a cleaner environment, lower emissions and the beneficial use of waste as a fuel.

The economic benefits accrue to the state with increased jobs resulting from new projects. The Investment Plan benefits by obtaining the best price, and this leads to a more robust market and lower energy costs for the consumer overall from greater competition.

Currently, the state of California is the only state in the U.S. that prohibits distribution in pipelines of biogas generated from landfills. CPUC tariffs impose a complete restriction on the development of landfill biogas for utility pipeline distribution. This needs to change. Technology exists to safely treat and monitor landfill gas for pipeline distribution, as demonstrated by approximately 30 projects in the U.S. outside California. The CEC should review successful programs in other states and fund similar programs to demonstrate the efficacy of landfill biomethane distribution in California. EPIC funds should be used to demonstrate the acceptability and feasibility of further developing this renewable resource. While some landfill gas is currently used to produce power onsite through engines, turbines and boilers, a more efficient use of biomethane would be to wheel the gas to combined cycle natural gas. Such more efficient use of the biogas will result in additional reduction of both GHGs and criteria pollutants.

EPIC Should Fund Programs that Advance Conversion Technologies

EPIC funding should be available for research, development and demonstration of anaerobic digestion, gasification and other types of emerging conversion technologies to produce energy from California's plentiful biomass resources – particularly waste biomass resources. The lowest carbon fuels potentially available for development are waste biomass resources – as clearly documented by CARB's own Low Carbon Fuel Standard (LCFS). The lowest carbon fuels in CARB's LCFS are waste-derived biofuels

Recently enacted AB341 (Chesbro, 2011) set a statewide solid waste diversion goal of 75% and CalRecycle is currently focusing on ways to get the organic waste component of the waste stream out of landfills. The CPUC must recognize the importance of funding technologies that can take materials diverted from landfills and convert them into low carbon and low criteria pollutant bioenergy. The CPUC should use EPIC funds to support efforts to enhance existing and develop new anaerobic digestion technologies at waste water treatment plants and other locations to accept organic wastes to maximize biomethane production to meet California's renewable energy needs. EPIC funds should be used to stimulate development of biomethane projects to generate both onsite and offsite bioenergy – and support the distribution of appropriately treated and conditioned biomethane through the utility pipeline system. Particularly in terms of funding, these emerging bioenergy projects need a significant commitment of financial support up-front with generous project development times.

EPIC Should Fund Mitigating Environmental Impacts of Renewable Energy Development

California Air Pollution Control Districts are imposing increasingly restrictive criteria pollutant emission standards on existing landfill gas-to-energy facilities.[1] This is true in virtually all air districts, but particularly so in the South Coast, San Joaquin Valley and Bay Area. The cost of compliance with air district standards may result in many of these bioenergy operations shutting down.

EPIC funds should be available to assist in the retrofit of renewable technologies that face significant new compliance costs and market barriers for growth. In addition to funding for new biogas projects, EPIC grant funding should be available to assist biogas to energy projects that may be abandoned because of the increasingly stringent criteria pollution emission standards – usually NOx and CO – being imposed on this renewable generation. The cost of the emission controls that are being required may lead to the abandonment of existing biogas to energy facilities and return to flaring. EPIC funding should be available to provide supplemental funding to keep these biogas to energy projects solvent and to prevent a return to flaring and waste of available biogas resources. Similarly, EPIC funding should be available through grants to help defray the pollution control costs of new biogas development projects.

EPIC Should Fund Community Programs that Provide Fuel Incentives to Increase Use of Forest Residue as Fuel

The CEC correctly has proposed program funding for "Energy Smart Communities." We ask that the Commission not focus solely on urban communities as part of this initiative, but we urge the

[1] *See, e.g.*, South Coast Air Quality Management District, Rule 1110.2 (Amended July 9, 2010).

CEC to broaden its scope to consider programs that strengthen the energy and environmental profile of rural communities and their surrounds. Smaller communities near California's magnificent forests would greatly benefit from fuel incentive programs that lower the risk of devastating fires and support for biomass generation from among the most expensive of biomass fuel sources to produce: in-forest residues. Leaving overgrowth material in the state's ecologically-stressed forests leaves the forests at high risk of massively destructive wildfires, impedes the functioning of watersheds, and has other negative effects on the forests and nearby communities. The fuel-production alternative also provides many more jobs in rural communities than conventional disposal or leaving in-place of the material. EPIC should fund community programs that incentivize the use of in-forest residues to generate electricity.

EPIC Should Fund Community Programs that Aggregate Clean Technologies into a Single Complex

The CEC should give special consideration to proposals that aggregate clean technologies to produce electricity and reduce greenhouse gases and other pollutants as part of an integrated site footprint. In addition to clean energy generation, management of municipal solid waste streams would be an integral part of such a project. This concept would provide synergies between the various technologies that make up the complex by using complimentary technologies ranging from anaerobic digestion, material recovery facilities, single stream recycling, composting, and energy recovery. Also, by having all collections brought to a single location, a single complex would reduce the distances trucks would need to travel in order to deliver their loads. Communities benefit from the totality of the technologies whose benefits are magnified by this synergistic approach. Ratepayers benefit from not only cleaner energy generation, but also a cleaner environment resulting from a more advanced waste management system.

EPIC Should Respect the Intellectual Property Rights and Trade Secrets to Encourage Participation by Innovative Technologies

In the spirit of transparency, it is tempting for EPIC to require disclosure of confidential information as part of the grant submission process. However, requirements for the full disclosure of trade secrets and confidential aspects of intellectual property will chill the participation of industrial partners who will look to other states for development of innovative technologies. A majority of jurisdictions view trade secrets as a property right and tend to hold that the right is only valuable as long as it remains secret. Public release of trade secrets distinguishes valuable property rights.

Companies are extremely reluctant to provide a public entity with trade secrets and risk loss of their most valuable property. Developers of innovative and clean energy generation will not take part in the EPIC program unless they are assured that intellectual property will be protected from infringement and confidentiality will be ensured. In many cases, confidential information is too sensitive to provide a public agency no matter the assurances of secrecy. It would be helpful for the CEC to provide for comment its specific requirements for information expected to be submitted in the grant process *prior* to release of a grant announcement. Given the complicated nature of this issue, and the sensitive nature of the information that may be requested, an opportunity to comment on the nature of required information would educate both the CEC and the developer about the needs of both parties.

With regard to the form of assistance, we have found most helpful public funding in the form of direct grants and price supports such as price guarantees for the energy produced.

Conclusion

Thank you for the opportunity to provide comment on the first triennial investment plan for the Electric Program Investment Charge Program. Please contact me if you have questions about these comments or require further information. WM looks forward to further participation in this process.

Respectfully submitted,

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