



April 21, 2009

The Honorable Henry Waxman
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Joe Barton
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Waxman and Ranking Member Barton:

On behalf of the Energy Recovery Council (ERC), I am providing the following comments on the American Clean Energy and Security Act of 2009 that was released as a discussion draft on March 31. While waste-to-energy has been recognized around the world as an important tool in reducing greenhouse gas emissions and as a renewable source of electricity, the draft legislation unfortunately fails to recognize its benefits. ERC believes that the legislation could be strengthened if it recognized and capitalized on the net greenhouse gas reductions and renewable energy provided by waste-to-energy and if it implemented policies that seek to promote it.

ERC represents those engaged in the nation's waste-to-energy sector. Waste-to-energy facilities produce clean, renewable energy through the combustion of municipal solid waste in specially designed power plants equipped with the most modern pollution control equipment to clean emissions. Trash volume is reduced by 90% and the remaining residue is safely reused or disposed in landfills. There are 87 waste-to-energy plants operating in 25 states managing about 7 percent of America's trash, or about 90,000 tons each day. The nation's waste-to-energy plants have a baseload electric generation capacity of approximately 2,700 megawatts to meet the power needs of more than two million homes while serving the trash disposal needs of more than 36 million people. In addition, a majority of the nation's waste-to-energy facilities are owned by local governments that have invested in this critical municipal infrastructure to achieve long-term solid waste management solutions.

The Energy Recovery Council believes Congress should exempt waste-to-energy facilities from any mandatory greenhouse gas reduction regime (such as cap-and-trade) given the waste-to-energy industry's significant contribution in reducing greenhouse gas emissions. Waste-to-energy facilities should also be given credit for the net avoided releases of greenhouse gases which can be used to offset emissions from regulated entities.

Waste-to-Energy reduces greenhouse gas emissions

Waste-to-energy achieves the reduction of greenhouse gas emission through three separate mechanisms: 1) by generating electrical power or steam, waste-to-energy avoids carbon dioxide (CO₂) emissions from fossil fuel- based electrical generation; 2) the waste-to-energy combustion process effectively avoids all potential methane emissions from landfills, thereby avoiding any potential release of methane in the future; and 3) the recovery of ferrous and nonferrous metals from municipal solid waste by waste-to-energy is more energy efficient than production from raw materials.

These three mechanisms provide a true accounting of the greenhouse gas emission reduction potential of waste-to-energy. A life-cycle analysis, such as the U.S. Environmental Protection Agency's Municipal Solid Waste Decision Support Tool, is the most accurate method for understanding and quantifying the complete accounting of any waste management option. A life-cycle approach should be used to allow decision makers to weigh and compare all greenhouse gas impacts associated with various activities and management options.

The Decision Support Tool is a peer-reviewed tool¹ that enables the user to directly compare the energy and environmental consequences of various management options for a specific or general situation. Technical papers authored by EPA² report on the use of the Decision Support Tool to study municipal solid waste management options.

These studies used a life-cycle analysis to determine the environmental and energy impacts for various combinations of recycling, landfilling, and waste-to-energy. The results of the studies show that waste-to-energy yielded the best results—maximum energy with the least environmental impact (emissions of greenhouse gas, nitrogen oxide, fine particulate precursors, etc.). In brief, waste-to-energy has been demonstrated to be the best waste management option for both energy and environmental parameters and specifically for greenhouse gas emissions.

When the Decision Support Tool is applied to the nationwide scope of waste-to-energy facilities that are processing 28 million tons of trash, it has been shown that the waste-to-energy industry prevents the release of approximately 28 million tons of carbon dioxide equivalents that would have been released into the atmosphere if waste-to-energy was not employed.

International Recognition

The ability of waste-to-energy to prevent greenhouse gas emissions on a life-cycle basis and mitigate climate change has been recognized in the actions taken by foreign nations trying to comply with Kyoto targets.

The Intergovernmental Panel on Climate Change (IPCC), the Nobel Prize winning independent panel of scientific and technical experts, has recognized waste-to-energy as a key greenhouse gas emission mitigation technology.

The World Economic Forum in its 2009 report, "Green Investing: Towards a Clean Energy Infrastructure," identifies waste-to-energy as one of eight technologies likely to make a meaningful contribution to a future low-carbon energy system.

In the European Union, waste-to-energy facilities are not required to have a permit or credits for emissions of CO₂, because of their greenhouse gas mitigation potential. In the 2005 report, "Waste Sector's Contribution to Climate Protection", the German Ministry of the Environment stated that "...waste incineration plants and co-incineration display the greatest potential for reducing emissions of greenhouse gases." The report concluded that the use of waste

¹ Available through US EPA and its contractor RTI International.

² "Moving From Solid Waste Disposal to Management in the United States," Thorneloe (EPA) and Weitz (RTI) October, 2005, and "Application of the U.S. Decision Support Tool for Materials and Waste Management," Thorneloe (EPA), Weitz (RTI), Jambeck (UNH), 2006

combustion with energy recovery coupled with the reduction in landfilling of biodegradable waste will assist the European Union-15 in meeting its obligations under the Kyoto Protocol. In a 2008 briefing, the European Environment Agency attributes reductions in waste management greenhouse gas emissions to waste-to-energy.

Under the Kyoto Protocol, by displacing fossil fuel-fired electricity generation and eliminating methane production from landfills, waste-to-energy plants can generate tradable credits (Certified Emission Reductions [CERs³]) through approved Clean Development Mechanism protocols. These CERs are accepted as a compliance tool in the European Union Emissions Trading Scheme.

In summary, waste-to-energy is recognized as a greenhouse gas mitigation technology that is eligible for offsets through independent approved protocols. Treatment of waste-to-energy as a source of greenhouse gas emissions would be inconsistent with internationally accepted science and accounting procedures. Just as importantly, it would put the United States at a disadvantage in meeting CO₂ reduction targets because an important tool used by other countries would not be available domestically.

Domestic Recognition

The ability of waste-to-energy to reduce greenhouse gas emissions has been embraced domestically as well. The U.S. Conference of Mayors adopted a resolution in 2004 recognizing the greenhouse gas reduction benefits of waste-to-energy. In addition, the U.S. Mayors Climate Protection Agreement supports a 7 percent reduction in greenhouse gases from 1990 levels by 2012. The Agreement recognizes waste-to-energy technology as a means to achieve that goal. As of the date of this letter, 935 mayors have signed the agreement.

The Global Roundtable on Climate Change (GROCC), convened by Columbia University's Earth Institute, issued a statement on February 20, 2007 identifying waste-to-energy as a means to reduce CO₂ emissions from the electric generating sector and methane emissions from landfills. The GROCC, which brought together high-level, critical stakeholders from all regions of the world, recognized the importance of waste-to-energy's role in reducing greenhouse gas emissions. The breadth of support for the GROCC position is evidenced by those that have signed the joint statement, including Dr. James Hansen of the NASA Goddard Institute for Space Studies, as well as entities as diverse as American Electric Power and Environmental Defense.

Waste-to-Energy is Renewable Energy

Since the inception of the commercial waste-to-energy industry more than three decades ago, policymakers have recognized municipal solid waste as a renewable fuel. The most recent statutory recognition came in the American Recovery and Reinvestment Act of 2009. In addition, twenty-four states and the District of Columbia define waste-to-energy as renewable.

Municipal solid waste is both sustainable and indigenous—two basic criteria for establishing what is a renewable energy source. Waste-to-energy facilities use this renewable fuel to generate clean electricity while also providing safe and reliable disposal of municipal solid waste. The

³ CDM protocol (AM0025 v7) and associated memorandum, "Avoided emissions from organic waste through alternative waste treatment processes."

sustainable nature of municipal solid waste is a major component of its historic renewable status. For more than three and a half decades, despite all of the efforts of EPA and many others to reduce, reuse and recycle, the U.S. diversion rate of municipal solid waste has climbed to barely 30%.⁴ During this same time period, the solid waste generation rate has more than *doubled* and the population has risen by more than 96 million people. Furthermore, for the past several years, the national average diversion rate has increased by less than one percentage point per year. Today, Americans dispose of more than 400 million tons of municipal solid waste per year of which less than 30 million tons is used as fuel in waste-to-energy facilities. It is clear to see that for the foreseeable future, there will be no end to an amount of municipal solid waste available as a renewable fuel.

In addition, section 203 of The Energy Policy Act of 2005 requires federal agencies to purchase 7.5 percent of their electricity from renewable sources by 2013. The applicable definition of renewable energy includes municipal solid waste, which is the fuel used by waste-to-energy plants. Section 203 is consistent with many state programs and a long history of federal laws defining renewable.

Legislative Recommendations

ERC strongly believes that any climate change legislation considered by Congress should recognize the life-cycle approach to greenhouse gas reductions so that any greenhouse accounting system accurately recognizes the impact of any source. We believe that this approach is technically sound and that it will demonstrate that the waste-to-energy industry can significantly assist in the reduction of greenhouse gas emissions and, therefore, should be exempt from the universe of targeted sources for greenhouse gas emission reductions or limits.

Unfortunately, the March 31 draft fails to recognize greenhouse gas reductions on a life-cycle basis, and improperly regulates waste-to-energy as if it were a net-positive emitter of greenhouse gases. The cumulative effect of the discussion draft would cause significant harm to the nation's waste-to-energy facilities and would ultimately increase, rather than reduce, greenhouse gas emissions.

ERC considers four provisions of the American Clean Energy and Security Act of 2009 particularly troublesome:

1) Regulation of waste-to-energy under the greenhouse gas cap

First, the Energy Recovery Council believes that the Committee should consider any biogenic CO₂ as carbon neutral. This position would be consistent with the scientific and accounting principles used internationally.

Second, while a fraction of municipal solid waste is comprised of post-consumer products derived from fossil fuel, to define municipal solid waste as a fossil fuel is misleading. The fossil-based components remaining after recycling are waste products that have met their intended purpose. Combustion and recovery of energy from these components recovers the remaining value in these products preventing the need to extract or import additional oil, coal,

⁴ *The State of Garbage in America*, BioCycle Magazine and Columbia University, BioCycle Magazine, December 2008

natural gas, and other fossil fuels. The combustion of these components does generate CO₂ emissions; however, these emissions are more than offset by avoided landfill methane emissions when a life-cycle approach is taken.

To make matters worse, the draft requires waste-to-energy facilities to submit compliance allowances for both biogenic and anthropogenic CO₂ emissions even though the IPCC and EPA both recognize CO₂ emissions from the combustion of biomass as part of the Earth's natural carbon cycle and assign a CO₂ equivalent weight of zero. *The discussion draft singles out waste-to-energy as the only source in the nation that would be required to submit compliance allowances for biogenic CO₂.*

Third, the March 31 discussion draft fails to analyze sources on a life-cycle basis and rather only recognizes direct emissions. The Committee should consider greenhouse gases on a life cycle basis, since direct emissions are only one part of the equation. According to life cycle assessments using the Decision Support Tool, waste-to-energy achieves a net reduction of approximately one ton of CO₂ for every ton of trash processed. We believe that the March 31 discussion draft would better be able to fulfill its purpose of reducing greenhouse gas emissions by recognizing the life cycle values instead of focusing on only part of the system—the CO₂ from combustion of fossil-based municipal waste.

The consequence of using a system inconsistent with international science and accounting is to impose compliance costs on waste-to-energy facilities for all CO₂, both biogenic and anthropogenic. Waste-to-energy facilities cannot afford this extra burden. If plants are forced to close, greenhouse gas emissions will increase in this country through increased dependence on fossil fuel for energy and increased landfill methane emissions.

ERC believes that the draft legislation should be amended to permit the use of life cycle assessments to determine whether a facility has exceeded the threshold of 25,000 tons of carbon dioxide equivalents. This construction would treat facilities that may have direct emissions, but achieve net reductions on a life cycle basis, in a manner consistent with the goals of the legislation. The existence of waste-to-energy facilities reduces greenhouse gas emissions. These reductions should not be jeopardized by placing significant compliance costs on these facilities.

2) Identification of greenhouse gas offsets

Since waste-to-energy achieves a net reduction of greenhouse gas emissions, the Energy Recovery Council believes it is appropriate for waste-to-energy to qualify as an offset technology. Recognizing waste-to-energy as an offset would provide an incentive to utilize the waste management option most widely hailed as contributing to the reduction of greenhouse gases. This would be consistent with the Clean Development Mechanism of the Kyoto Protocol, which includes waste-to-energy projects as an eligible offset technology.

3) Failure to include waste-to-energy as an eligible renewable in the renewable energy standard.

The Energy Recovery Council believes that any federal renewable energy standard must include waste-to-energy as an eligible renewable energy source and we are extremely concerned that the March 31 draft fails to recognize it as such (page 12). This would be the first time in more than

three decades that waste-to-energy was not recognized by the federal government as a renewable energy source.

4) Removal of waste-to-energy from eligibility in the federal renewable purchasing program.

The Energy Policy Act of 2005 established section 203 to require federal agencies to purchase 7.5 percent of its electricity from renewable sources, including waste-to-energy, by 2013. Section 203 is consistent with 24 state programs and a long history of federal laws defining renewable energy. We oppose the provision in the March 31 draft that prevents federal agencies from meeting their renewable energy requirements by entering into agreements for the purchase of power from waste-to-energy facilities (page 110, lines 15-17). It singularly targets for elimination a historic renewable fuel, and gives the remaining renewable energy technologies a competitive advantage over waste-to-energy facilities.

In conclusion, the Energy Recovery Council appreciates the opportunity to submit comments on the March 31 discussion draft. We have serious concerns with the March 31 draft and we strongly oppose it in its current form. I look forward to working with you and your staff to craft changes that are fair and reasonable and meet the goals of reducing greenhouse gas emissions and promoting renewable energy that we all share. Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Ted Michaels". The signature is written in a cursive style with a large, sweeping flourish at the end.

Ted Michaels
President