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Francis C. Steitz
NJ Department of Environmental Protection
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401 E. State St.
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Re: Reducing carbon emissions in New Jersey

Director Steitz:

Covanta is pleased to offer comments on the NJ Protecting Against Climate Threats (PACT) rule to reduce carbon emissions in New Jersey. Covanta is a U.S.-based company with headquarters in Morristown, NJ providing sustainable waste management and energy services internationally. Covanta is a national leader in developing, owning and operating waste-to-energy ("WTE") facilities that convert municipal solid waste ("MSW") into renewable energy. We operate three such facilities in New Jersey, in Union, Camden, and Essex counties. Statewide, the four WTE facilities generate over 150 MW of renewable electricity, recognized as Tier II in the state's RPS, close to load centers and act as critical community infrastructure processing almost 2 million tons of MSW annually, or roughly 20% of the State's total annual MSW generation.

As the DEP considers approaches to reducing GHG emissions in the state, the management of waste and materials should be a top priority. When it comes to addressing climate change, we normally think of carbon pollution from power plants, cars, and heating our homes and businesses. However, how we manage materials and waste has a big impact on the climate as well. The U.S. EPA has found that the full lifecycle of materials management, including the provision of goods and food, is responsible for 42% of U.S. GHG emissions.[1]

The blueprint for reducing GHG emissions from the waste management sector is already well proven. The European Union has successfully used an integrated waste management approach patterned on its waste management hierarchy, which places, in order, waste reduction, reuse, recycling and energy recovery, as preferable to landfilling. In its early implementation of the Kyoto Protocol, the EU's approach drove the biggest percentage GHG reductions in any sector in its EU economy (34%).[2] In fact, if New Jersey were able to manage its waste as sustainably as countries like Germany and Austria, the state could reduce lifecycle greenhouse gas (GHG) emissions by 3.3 million metric tons CO_2e each year.[3]

In line with the solid waste management hierarchies of the U.S. EPA and the European Union, waste reduction, reuse, and recycling are undoubtedly the top priorities and the most effective means of reducing GHG emissions. This should be a firm focus of the State's plans to reduce GHG emissions from waste & materials management. However, once these options are exhausted, energy recovery plays an important supporting role by keeping biodegradable wastes out of landfills, recovering metal for recycling, and generating renewable power close to load centers. In fact, WTE facilities are the only major source of electrical generation that are net carbon negative: the stack GHG emissions of fossil CO_2 are more than offset by the GHG emissions avoided by keeping wastes out of landfill.

Landfills are a major source of the greenhouse gas methane. Methane is a potent short-lived climate pollutant that is 84 times stronger than CO2 over 20 years, the timeframe stipulated by SB 3215.[4,5] New research has shown landfills to be a greater source of methane than previously thought. Direct measurement of landfill methane plumes via aircraft have found actual measured emissions from landfills to be **twice the amount reported** in GHG inventories.[6-11]

Recognition of WTE's GHG benefits alongside other sustainable waste management approaches in NJ's plans to reduce GHG emissions would be consistent with widespread international recognition of WTE as a source of GHG mitigation. U.S. EPA scientists, in a prominent peer reviewed paper, concluded EfW facilities reduce GHG emissions relative to even those landfills equipped with energy recovery systems.[12] This GHG benefit of WTE is widely recognized, including by the U.S. EPA;[13,14] Columbia University scientists,[15] U.S. EPA scientists;[16] the Intergovernmental Panel on Climate Change ("IPCC");[17] the World Economic Forum;[18] the European Union;[19,20] CalRecycle;[21] California Air Resources Board;[22] and the Joint Institute for Strategic Energy Analysis (NREL).[23] EfW facilities generate carbon offsets credits under both the Clean Development Mechanism (CDM) of the Kyoto Protocol and voluntary carbon offset markets.[24,25]

Thank you again for the opportunity to comment on the (PACT) rule to reduce carbon emissions in New Jersey. We look forward to working with you to develop an integrated approach to reducing GHG emissions from waste and materials management, inclusive of waste reduction, reuse, recycling and energy recovery.

Sincerely,

Michael E. Van Brunt, P.E.

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