

**Testimony by Frazier Blaylock  
Before the Maryland Senate Finance Committee  
February 11, 2020**

Good afternoon, my name is Frazier Blaylock and I represent Covanta, the largest operator of waste-to-energy (WTE) facilities in the United States, that have provided safe, cost-effective trash disposal and the generation of clean, renewable energy in Maryland since 1995.

I am here today to express our opposition to a provision of SB 265 (CARES) which would remove waste-to-energy (WTE) from Tier 1 of Maryland's Renewable Portfolio Standard (RPS). The elimination of waste-to-energy as a Tier 1 renewable source would ignore the many benefits these facilities bring to their communities, and the environment.

WTE is a clean, local, renewable, efficient, and economical form of energy production and post-recycled waste disposal that helps Maryland divert waste from landfills while producing renewable energy to reduce our reliance on fossil fuels to generate electricity. WTE belongs in Tier 1 of the renewable portfolio standard, as it has been since 2011.

The process of converting waste into energy is a key part of an integrated materials management plan that focuses on waste reduction, reuse, recycling, and recovery of energy. The U.S. EPA has said that WTE facilities produce electricity "with less environmental impact than almost any other source of electricity" and "communities greatly benefit from dependable, sustainable capacity of municipal WTE plants."<sup>1</sup>

A study of WTE technologies by the Joint Institute for Strategic Energy Analysis for the U.S. Department of Energy concluded that WTE is a

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“refined, clean, well-managed application for energy production.”<sup>2</sup> WTE meets the two basic criteria for establishing what a renewable energy resource is—its fuel source (trash) is *sustainable* and *indigenous*. WTE facilities recover valuable energy from trash after efforts to “reduce, reuse, and recycle” have been implemented by households and local governments.

The facilities we operate are internationally recognized as GHG mitigation tools, even after accounting for our stack emissions of fossil-based CO<sub>2</sub>. The IPCC called waste-to-energy a “key GHG mitigation measure.” We do this by diverting degradable organics from landfills, the 3rd largest source of methane globally and in the United States, displacing grid connected fossil-fuel fired electrical generation, and recovering metals for recycling. Alongside recycling, WTE has been a cornerstone of Europe’s efforts to reduce GHG emissions from the waste management sector.

Our GHG benefits relative to landfilling have been recognized by California’s air and waste regulatory agencies, U.S. EPA scientists, Columbia University’s Earth Engineering Center, U.S. EPA, the Obama Administration’s Clean Power Plan, the World Economic Forum, and the Joint Institute for Strategic Energy Analysis (“NREL”). EPA scientists, in a prominent peer reviewed paper, concluded WTE facilities reduce GHG emissions relative to even those landfills equipped with energy recovery systems.<sup>3</sup> EfW facilities generate carbon offsets credits under both the Clean Development Mechanism (CDM) of the Kyoto Protocol and voluntary carbon offset markets.<sup>i,ii</sup>

The benefits of diverting waste out of landfills to recycling and energy recovery are clearer than ever. As currently estimated, landfills are Maryland’s 4<sup>nd</sup> largest source of methane. However, they would easily move up to #1 or #2 if the inventory was updated with the recent measurement data. Across a series of recent studies employing direct measurement of methane plumes via aircraft downwind of landfills, actual measured emissions from landfills have averaged twice the amount reported in GHG inventories, including Maryland’s.

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<sup>2</sup> Joint Institute for Strategic Energy Analysis. 2013. Waste Not, Want Not: Analyzing the Economic and Environmental Viability of Waste-to-Energy (WTE) Technology for Site-Specific Optimization of Renewable Energy Options. Technical Report NREL/TP-6A50-52829.

Furthermore, Maryland's inventory downplays methane's role in the climate, using an outdated methane GWP. Today, scientists recognize methane as a potent short-lived climate pollutant that is more than 30 times stronger than CO<sub>2</sub> over 100 years, and 80 times stronger over 20 years, when all of its impacts are considered.<sup>iii</sup> States currently leading on climate, like New York and California, have adopted methane's 20-year GWP in planning and legislation.

The revenues, employment, and labor earnings derived from managing waste, producing energy, and recycling metals are the direct economic benefits of WTE.<sup>4</sup> In addition, these activities generate indirect impacts as well as induced impacts. Employees at WTE plants are technically skilled and are compensated at a high average wage. As a result, WTE facilities provide stable, long-term, well-paying jobs, while simultaneously infusing dollars into local economies through the purchase of local goods and services.

For the reasons stated in this testimony, Covanta opposes the removal of WTE from the RPS in SB 265. Thank you for your consideration of these remarks, I am glad to answer any questions.

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<sup>i</sup> Clean Development Mechanism: *Large-Scale Consolidated Methodology: Alternative waste treatment processes, ACM0022*. Available at: <https://cdm.unfccc.int/methodologies/PAmethodologies/approved>

<sup>ii</sup> Verified Carbon Standard Project Database, <http://www.vcsprojectdatabase.org/> See Project ID 290, Lee County Waste to Energy Facility 2007 Capital Expansion Project VCU, and Project ID 1036 Hillsborough County Waste to Energy (WtE) Facility 2009 Capital Expansion Unit 4.

<sup>iii</sup> The IPCC concluded that "it is likely that including the climate-carbon feedback for non-CO<sub>2</sub> gases as well as for CO<sub>2</sub> provides a better estimate of the metric value than including it only for CO<sub>2</sub>." See p714 & Table 8-7 of Myhre, G. *et al.* (2013) *Anthropogenic and Natural Radiative Forcing*. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., *et al.* (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. [https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5\\_Chapter08\\_FINAL.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf)

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