Testimony before the Joint Hearing of the Senate Consumer Protection and Professional Licensure Committee and Senate Environmental Resources and Energy Committees Frazier Blaylock, Covanta Energy May 1, 2019

Good afternoon, my name is Frazier Blaylock and I am here today representing Covanta Energy. Covanta operates five of the six waste-to-energy (WTE) facilities that provide waste disposal, metals recycling and renewable energy generation to almost 3 million residents in the Commonwealth. The 1,623 MWHs of electricity generated by these plants is less than 1% of the 215 million MWHs of electricity generated in Pennsylvania. But while their energy output is small, these facilities manage 36% of the waste generated in the Commonwealth, making them critical municipal infrastructure.

The six WTE facilities are located in Bucks, Dauphin, Delaware, Lancaster, Montgomery and York counties. Each of these is a uniquely organized public/private partnership, with some plants being publicly owned and privately operated. Similarly, the ownership of the energy revenue is different at each plant.

To be economically viable, WTE plants depend on income from waste tipping fees, the sale of electricity and to a lesser extent from the sale of recyclable metals.

The development of the industry was stimulated by the Federal PURPA program which required the local utility to enter into long term Power Purchase Agreements (PPA) for the electricity generated by certain independent power producers including waste-to-energy. This policy has since become more restrictive and the PA plants have all rolled off their original PURPA PPAs. Thus WTE plants are now competing in a market driven by low-priced natural gas. The result has been a dramatic reduction in the revenues necessary to support the ongoing operations and maintenance of this vital municipal infrastructure.

Raising disposal fees might seem an obvious solution to dwindling energy income. However, these costs cannot be raised to compensate for this downturn because low cost landfills are a readily available and cheap alternative. To make things even more challenging, landfill gas is in Tier 1 of the AEPS, giving them an economic advantage in the marketplace since 2004 despite the fact that WTE plants are the environmentally superior option for waste disposal.

When the Alternative Energy Portfolio Standard was originally enacted, WTE was placed into Tier 2 which has had minimal, if any, value due to the oversupply of eligible technologies. While the goal of the AEPS was to generate growth for a diverse energy portfolio, WTE capacity in PA has not increased since then and Covanta's facilities have never generated a dime of revenue from the program. The Tier 2 RECs have been valued at between .01 cents per kilowatt hour or "kwh" (\$0.0001 per kwh) and .07 cents per kwh (\$0.0007 per kwh).

On the flip side, the Tier 1 generators, which include wind, solar and *landfill gas* have enjoyed significant benefits earning anywhere from 10 cents per kwh (\$0.10+ per kwh) to the current rate of approximately 3 cents per kwh (\$0.03 per kwh). This has added to the economic challenge that WTE plants have had since the loss of their original long-term PPAs.

One of the most critical policy issues surrounding the future of the AEPS is the impact of the electricity sector on climate change. Waste-to-energy has long been recognized by the EPA and international scientific community as a technology that can help mitigate climate change. According to the EPA, for every ton of municipal solid waste processed at a WTE facility, the release of approximately one ton of carbon dioxide equivalent emissions into the atmosphere is prevented due to the avoidance of methane generation at landfills, the offset of greenhouse gases from fossil fuel electrical production, and the recovery of metals.

Landfills are the largest source of man-made methane and methane has been found to be over 30 times more potent a greenhouse gas than carbon dioxide, according to the International Panel on Climate Change (IPCC). The European Union has implemented a Landfill Directive to reduce the landfilling of biodegradable waste to reduce methane emissions and meet climate change goals. Given its benefits, EfW has been recognized extensively, both here and abroad, including by the following organizations: • U.S. EPA • IPCC • World Economic Forum (WEF) • European Union • U.S. Conference of Mayors • Clean Development Mechanism of the Kyoto Protocol • Voluntary carbon markets • Center for American Progress. Changes to the AEPS could make a significant contribution to WTE's continued role as a climate mitigation tool.

The economic strains on the PA facilities have become significant enough to threaten the future economic viability of the Commonwealth's WTE infrastructure. The industry is committed to utilizing state-of-the art technology and making investments to ensure the protection of our environment and surrounding communities. The plants require maintenance and continuous improvement which is not affordable absent the energy revenue they earned in their original PPAs. The dramatic falloff of energy pricing at the plants and the unlevel playing field with landfills has led to doubts about the future of the industry in Pennsylvania.

I appreciate your two committees considering meaningful, long over-due changes to the AEPS and the opportunity to speak with you today. Thank you.